CA2 ALPW
A56
1966/1967

ALBERTA LEGISLATURE LIBRARY
3 3398 00359 2705

ANNUAL REPORT
OF THE
DEPARTMENT OF PUBLIC WORKS
OF THE
PROVINCE OF ALBERTA

1966-67

Digitized by the Internet Archive
in 2020 with funding from
Legislative Assembly of Alberta - Alberta Legislature Library

Digitized by the Internet Archive
in 2020 with funding from
Legislative Assembly of Alberta - Alberta Legislature Library

https://archive.org/details/ableg_33398003592705

A2ALPW
A56
1966/67

LIBRARY
VAULT 19

ALBERTA PROVINCIAL LIBRARY
JAN 30 1968
EDMONTON

ANNUAL REPORT

OF THE

Department of Public Works

OF THE

PROVINCE OF ALBERTA

1966-67

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON, ALBERTA
Printed by LEE S. WALL, Printer to the Queen's Most Excellent Majesty
1968

ANNUAL REPORT

OF THE

Department of Public Works

OF THE

PROVINCE OF ALBERTA

1966-67

PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON, ALBERTA
Printed by LEE S. WALL, Printer to the Queen's Most Excellent Majesty
1968

THE HONOURABLE F. C. COLBORNE
Minister of Public Works

Edmonton, Alberta,
October 1, 1967.

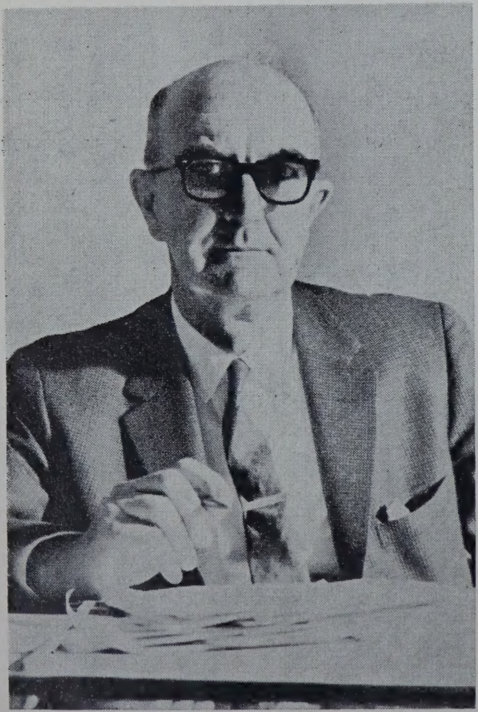
To His Honour J. W. Grant MacEwan,
Lieutenant Governor
of the Province of Alberta.

Sir:

The undersigned has the honour to submit herewith the Report of the Department of Public Works for the year ended March 31, 1967.

Respectfully submitted,

F. C. COLBORNE,
Minister of Public Works.



S. E. KENWORTHY

Deputy Minister
of Public Works

Edmonton, Alberta,
October 1, 1967.

TO:
The Honourable F. C. Colborne,
Minister,
Department of Public Works.

Sir:

I have the honour to submit herewith a report covering the activities of the Department of Public Works for the fiscal year ending March 31, 1967. This report comprises:

1. A report on the functions of the Department
2. An organization chart
3. Detailed procedure on calling of tenders and award of contracts
4. A list of tenders called, bids received and contracts awarded
5. A list of projects completed in the fiscal year
6. Programme of construction describing buildings under construction or completed during the year for the following departments:

Agriculture

Horticultural Station, Brooks

Consolidated Laboratories, Edmonton

Agricultural and Vocational College, Fairview
- Central Heating Plant and Services Distribution System
- Farm Structures and Farm Machinery Laboratory
- Girls' Residence

Agricultural and Vocational College, Olds
- Animal Science Building
- Central Heating Plant and Services Distribution System
- Students' Residence

Drying and Seed Extraction Building, Oliver

Agricultural and Vocational College, Vermilion
- Addition to Animal Science Building
- Central Heating Plant and Services Distribution System
- Dairy Studies Building
- Home Economics, Commercial and Academic Building

Attorney General

Administration Building, Provincial Gaol, Calgary
Provincial Gaol, Peace River

Education

Southern Alberta Institute of Technology, Calgary
Northern Alberta Institute of Technology, Edmonton

Highways

Department of Highways Building, Calgary
Maintenance and Repair Shops, Edmonton East
Repair Shop, Edson
Repair Shop, Lac La Biche

Highway Maintenance Garages
- Duchess
- Hinton
- Lac La Biche
- Clyde
- Anzac
- Edson
- Scott Lake
- Magrath
- Swan Hills
- Lethbridge

Lands and Forests

Bow River Forestry Headquarters, Calgary
Provincial Park, Cypress Hills
Forestry Headquarters, Footner Lake
Forestry Headquarters, Fort McMurray
Forestry Headquarters, Hinton
Forestry Headquarters, Peace River
Forestry Headquarters, Slave Lake
Provincial Park, Wabamun
Forestry Headquarters, Whitecourt

Provincial Secretary

Provincial Museum and Archives, Edmonton

Public Health

Alberta Hospital, Claresholm
Alberta Hospital, Edmonton
Alcoholism In-Patient Treatment Centre, Edmonton
Cancer Clinic Hospital, Edmonton
Veterans' Nursing Home, Edmonton
Student Nurses' Residence, Red Deer

Public Welfare

Sprucecliff Home, Calgary
Diagnostic and Receiving Centre, Edmonton
Woodside Home, Edmonton
Welfare Centre, Gunn
Receiving Home for Children, Lethbridge
Home for the Aged, Sylvan Lake

Public Works

Department of Public Works Building, Calgary
Provincial Building, Castor
Provincial Building, Claresholm
Provincial Building, Falher
Provincial Building, Grande Prairie
Administration Building, Medicine Hat
Provincial Building, Olds
Carpenter Shop, Red Deer

Treasury

- Treasury Branches
    - Brooks
    - Vulcan

University of Calgary

Calgary Hall
Central Heating and Cooling Plant
Bow River Cooling Water System
Education Building
Engineering Centre, Stages II and III
Kananaskis Science Station
Underground Utilities Distribution System

University of Alberta

Biological Sciences Building
Central Cooling Plant
Education Building Library Addition
Environmental Control Laboratory
Engineering Centre
Henry Marshall Tory Building
North Loop Services Tunnel
Printing Services Building
Vivarium

Alberta Liquor Control Board

Liquor Stores
  Vegreville
  Vauxhall
  Milk River
Liquor Warehouse, Calgary
Paving and Related Work – Government Institutions

7. Report on the employment of private architects
8. List of all commissions awarded to private architects and engineers during the year
9. Maintenance Branch report
10. Properties Administration Section report
11. Utilities Branch report
12. Statement of operation of the Stock Advance Branch
13. Personnel Branch report
14. Grants payable towards the cost of construction of swimming pools
15. The Crown Properties Municipal Grants Act showing grants paid in lieu of taxes
16. A table showing total expenditures over the last five years.

During the fiscal year under review, the Department undertook yet another heavy program of design, construction and maintenance. Illustrations are included in this report of some of the buildings that were under construction or completed.

Further minor changes to the internal organization of the Department were effected during the past year and these are outlined in the report of the Personnel Officer.

Our close liaison with the Alberta Construction Association has continued during the past year and I am happy to report that both members of this Department and of the Association are very satisfied with this relationship. The general manager of the Association, or his representative, attends all tender openings and assists the Tendering Committee in reviewing bids in terms of compliance with the Alberta Bid Depository Limited regulations.

The activities of the various operational committees of the Department have, I believe, been very successful during the past year. The processing of tenders, the allocation of space for Government departments and the selection of private architectural and engineering consultants have continued to be carried out by the committees established for these various purposes. I am able to report that no complaints have been received from any source with regard to the activities of these committees. The method of processing tenders, in particular, has, I believe, been accepted with considerable satisfaction by the construction industry in the Province.

In another very busy year, faced with the problem of ever increasing costs of construction, the staff of the Department has carried out its duties in a very satisfactory manner and I would like, once again, to record my appreciation for the cooperation accorded me.

Respectfully submitted,

S. E. KENWORTHY,

Deputy Minister of Public Works.

1867 1967
CANADA-CONFEDERATION

CENTENNIAL YEAR'S EVE

New Year's Eve, 1966, saw Canada's Centennial Year ushered in across the country by colourful ceremonies at each Provincial capital. The occasion was marked in Edmonton by an impressive ceremony in the Legislative Building Grounds, conducted by the Honourable E. C. Manning, Premier of the Province, and attended by many provincial, civic and clerical dignitaries and members of the general public. Highlights of the occasion were the lighting of an Eternal Flame and the turning on of new floodlighting for the Legislative Building. The ceremony was also one of the first occasions at which the Alberta Centennial Carillon was heard by those attending the celebration. The Carillon, which was installed by the Department of Public Works in the dome of the Legislative Building, had been dedicated at a ceremony on December 1, 1966. The 305-bell Schulmerich Carillon, which was purchased by the Department of the Provincial Secretary as a Centennial project and gift to the people of Alberta, is installed in the cupola of the main dome with the console located on the fifth floor.

The Eternal Flame, together with its setting, was designed as a Centennial project by the Landscape Architectural Section of the Department of Public Works, under the direction of P. R. Butler. The flame, which burns at the top of an ornamental standard of stainless steel set in an ornamental pool and surrounded by a small landscaped terrace, is located at the foot of the steps leading down from the south wing of the Legislative Building. Fuel for the flame is natural gas.

The basic floodlighting of the Legislative Building is in an amber hue from 70 sodium floodlights spaced around the perimeter of the building at ground level and shining upward, six to eight feet out from the foundation. Forty-eight fluorescent floodlights around the top balcony outline the pillars and railing in amber and 38 quartz floodlights of 1,500 watts each, mounted under the front canopy and under balconies spotlight pillars and windows. Illumination of the dome, installed almost 30 years ago with 24 incandescent floodlights, remains unchanged.

Alberta's major Centennial project, the Provincial Museum and Archives in Edmonton, is described in detail later in this report under work for the Department of the Provincial Secretary.

THE FUNCTION OF THE DEPARTMENT OF PUBLIC WORKS

The Department of Public Works is required to provide suitable accommodation, the necessary furnishings and equipment to all Departments of the Government so that the Departments may carry out the various functions required of them. Such accommodation is provided in buildings rented, purchased or constructed by the Department of Public Works.

The Department is responsible for the construction of all Provincial Government Buildings.

The chief officials of the Department are:

Minister of Public Works	Honourable F. C. Colborne
Deputy Minister of Public Works	Mr. S. E. Kenworthy
Assistant Deputy Minister of Public Works	Mr. G. D. Menzies
Director, Design and Construction	Mr. J. F. Hunt
Chief Architect, Northern Region	Mr. N. M. Fleming
Chief Architect, Southern Region	Mr. V. G. Bathory
Chief Engineer	Mr. H. H. Neelands
Director of Utility Services	Mr. W. S. Davies
Administrative Accountant	Mr. K. C. Thomas
Director of Maintenance	Mr. H. W. Brettelle
Chief Construction Engineer	Mr. W. A. Hiller
Superintendent of Construction	Mr. H. Kinsey
Contracts Branch Administrator	Mr. V. C. Heim
Property Administrator	Mr. E. E. Wilson
Personnel Officer	Mr. W. A. R. Barry

The Department is also responsible for the servicing and maintenance of all Provincial Government owned buildings, with the exception of various self-contained institutions, such as the Colleges of Agriculture and the Universities. The maintenance and servicing of these buildings needs the services of a large group of men of assorted technical skills. Carpenters, plumbers, electricians and other tradesmen keep these buildings in good repair. Gardeners maintain the surrounding grounds which are quite extensive at some points, for example, the Alberta Hospital, Edmonton, and the Southern Alberta Institute of Technology, Calgary. Caretakers keep the buildings clean, men operate the elevators, and watchmen guard the buildings at night.

The extensive programme of construction which we are presently undertaking requires not only the services of a large staff of architects, engineers, draftsmen, surveyors and building inspectors, who design and plan the buildings and supervise the work of the contractors but, also, the engagement of private consulting architects and engineers. A resume dealing with the engagement of private architects follows later in this Report.

Some urgent and also minor construction work is undertaken by our own forces. Such work is kept to a minimum because it is the policy of the Department to have whatever construction work necessary done whenever possible by the contractors. This requires the Department to maintain a staff of tradesmen which is augmented by temporary staff as the requirements of the work necessitate.

The Department also operates various trade shops where furniture and equipment such as laboratory benches, etc., are made.

A group of engineers, firemen and tradesmen working under the Director of Utility Services is responsible for the supply of electric power, heat, water and sewage disposal at the eighteen largest institutions. These men also design, install and maintain the special equipment necessary. At these institutions, farm machinery, milking, canning, laundry, kitchen and fire fighting equipment is maintained and kept in good repair by the staff. The utilities and maintenance service of a large institution is comparable to the servicing of a town of two or three thousand people.

The Department has a number of other functions including the arrangements for the installation and rental of telephones and, when required, the buying and leasing of lands for building sites. The Department is also responsible for the renting to civil servants of Government-owned residences which are located throughout the Province, mainly at the Provincial Mental Institutions and Gaols, and parking stalls on Government property in Calgary and Edmonton.

A large modern garage, located on the ground floor of Block "A", Terrace Building, Edmonton, services the automobile fleet of the Government.

G. D. MENZIES
A.R.I.A.S., A.R.I.B.A.,
M.R.A.I.C.
Assistant
Deputy Minister

J. F. HUNT, P.Eng.
Director of Design
and Construction

N. M. FLEMING
A.R.I.B.A., M.R.A.I.C.
Chief Architect,
Northern Region

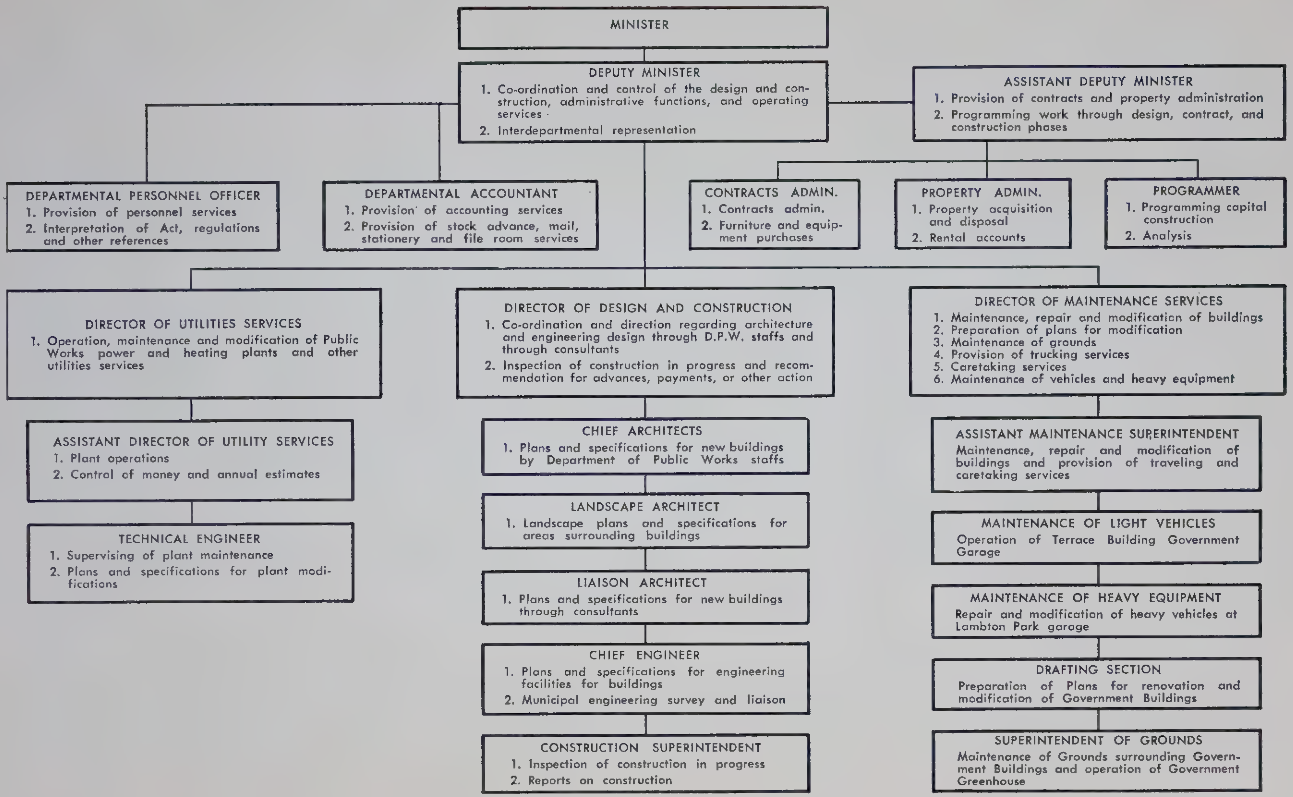
H. H. NEELANDS
P.Eng.
Chief Engineer

V. G. BATHORY
M.R.A.I.C.
Chief Architect,
Southern Region

V. C. HEIM
Contracts Branch
Administrator

K. C. THOMAS
Administrative
Accountant

DEPARTMENT OF PUBLIC WORKS ORGANIZATION CHART – PERIOD APRIL 1, 1966 TO DECEMBER 31, 1966



MINISTER

DEPUTY MINISTER
1. Co-ordination and control of the design and construction, administrative functions, and operating services
2. Interdepartmental representation

ASSISTANT DEPUTY MINISTER
1. Provision of contracts and property administration
2. Programming work through design, contract, and construction phases

DEPARTMENTAL PERSONNEL OFFICER
1. Provision of personnel services
2. Interpretation of Act, regulations and other references

DEPARTMENTAL ACCOUNTANT
1. Provision of accounting services
2. Provision of stock advance, mail, stationery and file room services

CONTRACTS ADMIN.
1. Contracts admin.
2. Furniture and equipment purchases

PROPERTY ADMIN.
1. Property acquisition and disposal
2. Rental accounts

PROGRAMMER
1. Programming capital construction
2. Analysis

DIRECTOR OF UTILITIES SERVICES
1. Operation, maintenance and modification of Public Works power and heating plants and other utilities services

ASSISTANT DIRECTOR OF UTILITY SERVICES
1. Plant operations
2. Control of money and annual estimates

TECHNICAL ENGINEER
1. Supervising of plant maintenance
2. Plans and specifications for plant modifications

DIRECTOR OF DESIGN AND CONSTRUCTION
1. Co-ordination and direction regarding architecture and engineering design through D.P.W. staffs and through consultants
2. Inspection of construction in progress and recommendation for advances, payments, or other action

CHIEF ARCHITECTS
1. Plans and specifications for new buildings by Department of Public Works staffs

LANDSCAPE ARCHITECT
1. Landscape plans and specifications for areas surrounding buildings

LIAISON ARCHITECT
1. Plans and specifications for new buildings through consultants

CHIEF ENGINEER
1. Plans and specifications for engineering facilities for buildings
2. Municipal engineering survey and liaison

CONSTRUCTION SUPERINTENDENT
1. Inspection of construction in progress
2. Reports on construction

DIRECTOR OF MAINTENANCE SERVICES
1. Maintenance, repair and modification of buildings
2. Preparation of plans for modification
3. Maintenance of grounds
4. Provision of trucking services
5. Caretaking services
6. Maintenance of vehicles and heavy equipment

ASSISTANT MAINTENANCE SUPERINTENDENT
Maintenance, repair and modification of buildings and provision of traveling and caretaking services

MAINTENANCE OF LIGHT VEHICLES
Operation of Terrace Building Government Garage

MAINTENANCE OF HEAVY EQUIPMENT
Repair and modification of heavy vehicles at Lambton Park garage

DRAFTING SECTION
Preparation of Plans for renovation and modification of Government Buildings

SUPERINTENDENT OF GROUNDS
Maintenance of Grounds surrounding Government Buildings and operation of Government Greenhouse

CALLING OF TENDERS AND AWARDING OF CONTRACTS

Departments of the Government which need additional work space submit their space requirements to the Department of Public Works. If, in order to provide this additional space, a new building is deemed necessary, the Architectural Office effects liaison with the Department or Departments concerned, and the actual space requirements and the purpose of the proposed building are determined. In co-operation with the Departments which will be housed in the building, preliminary plans are drawn, and from such plans an estimate of the cost of construction is obtained. A sum of money is submitted in the annual estimates for the next fiscal year for approval by the Legislature. Needless to say, the actual amount of money requested is dependent upon the amount of construction that this Department estimates will be done in the following fiscal year. If actual construction is not expected in the following fiscal year, a nominal sum not exceeding $10,000.00 is requested to cover preliminary investigations on the site, which may include soil testing and/or utility line relocations.

The design and the basic construction materials of which the structure will be built are determined by the Deputy Minister in consultation with the Director of Design and Construction. Detailed plans are then drawn and submitted for approval to the Deputy Minister, bearing the signature of the Chief Engineer and the Chief Architect. If approval is obtained from the Deputy Minister, the plans are submitted to the Minister of the Departments concerned and these Ministers are required to sign the plans. Finally, the plans are submitted to the Minister of the Department of Public Works for signature.

Advertisements calling for tenders are placed in the major newspapers throughout the Province, in Trade Papers and the various Construction Associations and such advertisements usually run for a period of three days.

The size of the project under construction determines the length of the "tender period". All tenders are opened in public at two o'clock on a Thursday afternoon in the Conference Room of the Department of Public Works. The Department will consider the use of acceptable alternate materials to those specified during the "tender period" but applications for such alternate approvals will not be accepted later than ten days prior to the closing date of tenders. No request for the employment of alternate materials is considered after the contract has been awarded. When it is necessary to issue addenda approving alternate materials or a change in design, such addenda are issued at least seven days prior to the closing of tenders and, incidentally, these addenda are sent by double registered mail to any contractor who has indicated his intention to bid on the project by obtaining plans and specifications. The plans and specifications are available by the payment of a nominal deposit to those firms registered in or eligible for registration in the Province of Alberta. This is refunded when the plans and specifications are returned to the Department within a specified time limit. Additional copies of the plans and specifications are also sent to the Construction Associations in the major cities throughout the Province, and to the other major cities in Canada in the case of larger projects.

During the past year the Department has continued to use the services of the Alberta Bid Depository for all contracts exceeding $100,000.00. The Alberta Bid Depository is operated by the Alberta Construction Association, which represents the building industry in Alberta. This system requires all sub-contractors to send to the Alberta Bid Depository any bids the sub-contractor wishes to submit to a general contractor. The Alberta Bid Depository distributes to the general contractors the bids received from the sub-contractors.

Each tenderer must submit with his tender a sum of not less than 10% of the total tender price. While such deposit is usually by certified cheque, the Department would accept cash, Dominion of Canada Bearer Bonds or a Bid Bond. At the close of the tender opening, the tender deposits submitted by the two lowest tenderers are held pending a review of tenders. The lowest tender is checked carefully by the Department Tendering Committee to ensure that it complies with the specifications and that all sub-contractors are shown and that those shown are acceptable to the Department. A Bid Sheet is prepared and signed by the committee that opened the tenders and forwarded to the Minister of Public Works with a Press Release giving complete details. Following the Minister's approval, a letter of intent is forwarded by the Department to the successful tenderer advising that contract documents are being prepared for his signature. The contract documents are prepared in duplicate and forwarded to the contractor. When returned properly signed by the contractor, they are then signed by the Minister of Public Works.

When the successful contractor returns the signed contract documents to the Department he may substitute his certified cheque, which equals not less than 10% of the total tendered price, with a 100% Material and Performance Bond. If he does not do this but leaves as a guarantee or security deposit the original certified cheque or replaces this cheque with Dominion of Canada Bearer Bonds equal to 10% of the total tendered price, the Department retains as a holdback 10% of the total of each progress estimate. However, if the contractor does substitute a 100% Material and Performance Bond for his original certified cheque, the Department retains 15% of the total of each progress estimate. It will thus be seen that when the contractor has completed the project, the Department has either:–

1. A certified cheque or Dominion of Canada Bearer Bonds equal to 10% of the total tendered price as a guarantee for the satisfactory completion of the contract and also a holdback equal to 10% of the total payments made by progress estimates, or
2. A 100% Material and Performance Bond as a guarantee for the satisfactory completion of the contract and also a holdback equal to 15% of the total payments made by progress estimates.

The Department makes an inspection of the completed project and if the contract has been completed to the satisfaction of the Department, payment of the monies held back from the payment of each progress estimate is made to the contractor 30 days later. If the project is not completed to the satisfaction of the Department, the payment of the monies held back from the payment of each progress estimate is withheld until all deficiencies have been corrected.

Material and performance bonds expire one year after the acceptance of the project, thus providing a guarantee for that period. If a certified cheque or Government of Canada bonds equal to 10% of the tender price has been deposited as a guarantee for the successful completion of the contract, the cheque or bonds are returned to the contractor one year after the completion of the project.

TENDERS CALLED AND CONTRACTS AWARDED

THE FOLLOWING BIDS WERE OPENED IN PUBLIC AND CONTRACTS AWARDED DURING THE FISCAL YEAR WHICH ENDED MARCH 31, 1967. Bids marked with an asterisk were withdrawn by the tenderers before this Department had forwarded a letter of acceptance to the bidder, or were rejected by this Department because the bidder failed to comply with the regulations governing the submission of tenders. Where the low bid was withdrawn or rejected and the contract awarded to the second lowest bidder, authority for so doing was obtained by Order of the Lieutenant Governor in Council.

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
PRINTING SERVICES BUILDING, UNIVERSITY OF ALBERTA, EDMONTON. April 7, 1966.	
Stuart Olson Limited	$ 1,083,827.00
Christensen and MacDonald Construction Ltd.	1,079,750.00
Poole Construction Limited	1,074,700.00
Bird Construction Company Limited	1,068,787.00
Bennett & White Alberta (1963) Ltd.	1,039,141.00
Harsim Construction Ltd. awarded	**1,021,230.00**
ANIMAL SCIENCES BUILDING, OLDS. April 7, 1966.	
Camwil Construction Ltd.	409,720.00
Julien Construction Ltd.	397,872.00
Norman Nilsen Construction Ltd.	388,202.00*
Commonwealth Construction Co. Ltd.	385,661.00
Poole Construction Limited	381,900.00
W. J. Bennett Contractors Ltd.	376,662.00
Jason Construction Ltd.	375,268.00
W. R. Sandquist Construction Ltd.	371,432.00
Harsim Construction Ltd. awarded	**362,362.00**
ADMINISTRATION BUILDING, WOODSIDE HOME, EDMONTON. April 14, 1966.	
P. W. Graham & Sons Northern Ltd.	82,980.00*
Rendek Construction Ltd.	70,757.00
Ness Construction Ltd.	65,762.00
Dornwood Construction Ltd.	65,000.00
D. S. Greenfield Construction Ltd.	64,990.00
Norman Nilsen Construction Ltd.	64,865.00
Alther Construction Ltd.	63,950.00
Joslyn & Olsen Contractors Ltd. awarded	**60,470.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
6″ HIGH PRESSURE STEAM LINE, CLINICAL SERVICES BUILDING, UNIVERSITY OF ALBERTA HOSPITAL, EDMONTON. April 21, 1966.	
Kneller Welding Ltd. ....$	26,825.00
Carse-Anderson Ltd.	18,871.00
Economy Plumbing	17,244.00
Brown & Root Ltd.	16,656.00
D. B. W. Engineering	14,980.00
Meccon Installations	14,876.00
Lockerbie & Hole Western Ltd.	14,840.00
Petrie Engineering .... awarded	**9,377.00**
TILE WORK, INCINERATOR, ALBERTA HOSPITAL, EDMONTON. May 5, 1966.	
Reeson Tile & Terrazzo Ltd.	2,034.00
"Bob" Candido's Tile & Terrazzo Co. Ltd.	1,597.00
Columbia Tile & Terrazzo Ltd. .... awarded	**1,560.00**
TILE WORK, WASHROOMS, ALBERTA HOSPITAL, PONOKA. May 5, 1966.	
Columbia Tile & Terrazzo Ltd.	5,966.00
"Bob" Candido's Tile & Terrazzo Co. Ltd. awarded	**5,646.00**
UNDERGROUND UTILITIES DISTRIBUTION SYSTEM, UNIVERSITY OF CALGARY, CALGARY. May 19, 1966.	
Bird Construction Company Limited	2,638,000.00
Brown & Root Ltd.	2,594,130.00
Commonwealth Construction Company Limited ..	2,553,900.00
Poole Construction Limited	2,464,500.00
Burns & Dutton Construction (1962) Ltd. . awarded	**2,452,000.00**
PHASE I, ENGINEERING CENTRE, UNIVERSITY OF ALBERTA, EDMONTON. May 19, 1966.	
Laing Construction and Equipment Limited	6,535,718.00
The Foundation Company of Canada Limited	6,520,074.00
Bird Construction Company Limited	6,448,000.00
Universal Construction Co. Ltd.	6,398,500.00
Poole Construction Limited	6,196,132.00
Burns & Dutton Construction (1962) Ltd. . awarded	**6,183,883.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
EXTENSION OF PAVING, WALKS AND RELATED WORK, NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY, EDMONTON. May 26, 1966.	
O'Hanlon Paving Ltd.	$ 16,726.86
Everall Construction (Edmonton) Ltd.	14,600.03
W. C. Wells Construction Co. Ltd.	12,294.80
Crown Paving (1966) Ltd. awarded	**10,539.95**
GRADING, GRAVELLING, PAVING AND RELATED WORK, OIL AND GAS CONSERVATION BOARD, EDMONTON. May 26, 1966.	
O'Hanlon Paving Ltd.	13,675.90
Everall Construction (Edmonton) Ltd.	12,515.00
W. C. Wells Construction Co. Ltd.	10,738.50
Crown Paving (1966) Ltd. awarded	**10,369.70**
GRADING, PAVING AND RELATED WORK, VIVARIUM, UNIVERSITY OF ALBERTA FARM, ELLERSLIE. May 26, 1966.	
O'Hanlon Paving Ltd.	17,189.60
Everall Construction (Edmonton) Ltd.	13,807.80
W. C. Wells Construction Co. Ltd.	11,350.50
Crown Paving (1966) Ltd. awarded	**11,267.70**
FOUR STALL HIGHWAY MAINTENANCE GARAGE, CLYDE. May 26, 1966.	
Bird Construction Co. Ltd.	64,975.00
Matheson Engineering & Construction Ltd.	64,550.00
Camwil Construction Ltd.	60,750.00
Fort Construction Company Limited	59,932.00
Forest Construction Limited	58,976.00
Parkins Construction Limited	56,330.00
Enterprise Building Contractors	54,454.00*
Bilodeau & Sons Construction Ltd.	53,750.00
R. Holzer Construction	52,711.00
Joslyn & Olsen Contractors Ltd. awarded	**52,203.00**
FOUR STALL HIGHWAY MAINTENANCE GARAGE, MAGRATH. May 26, 1966.	
Chronik Construction Ltd.	64,938.00
Swanson & Olofson Construction	63,850.00
Bird Construction Company Limited awarded	**61,900.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
PAVING, SIDEWALKS AND RELATED WORK, WELFARE CENTRE, GUNN. June 2, 1966.	
W. C. Wells Construction Co. Ltd.	$ 36,815.50
Everall Construction (Edmonton) Ltd.	35,877.00
Arthur A. Voice Construction Co. Ltd. ... awarded	**33,650.00**
EXTENSION OF PAVING AND RELATED WORK, PROVINCIAL GAOL, CALGARY. June 2, 1966.	
Standard-General Construction (International) Ltd.	24,086.00
Gallelli and Sons Company Limited	22,920.00
Pioneer Paving Ltd. ... awarded	**21,735.50**
SEWER AND WATER EXTENSION, DEPARTMENT OF HIGHWAYS AND PUBLIC WORKS BUILDING, CALGARY. June 2, 1966.	
Whissell Enterprises Ltd.	54,440.00
I. W. Campbell Construction Ltd.	53,880.00
Burns & Dutton Construction (1962) Ltd.	44,962.70
Borger Construction Limited ... awarded	**37,875.25**
REPLACEMENT OF ROOFING, BOWDEN INSTITUTION, BOWDEN. June 2, 1966.	
L. H. Walker Roofing Ltd.	16,868.00
Freeze Maxwell Co. Ltd.	16,534.00
Western Roofing Company Ltd.	16,255.00
Aetna Roofing (1965) Ltd.	14,656.00
Christensen & McLean Roofing (R.D.) Ltd.	11,878.00
Midwest Roofing & Maintenance Ltd. ... awarded	**11,200.00**
EXTENSION OF STORM SEWER SYSTEM, BOWDEN INSTITUTION, BOWDEN. June 2, 1966.	
Whissell Enterprises Ltd.	17,885.00
DeVries Bros. Excavating Ltd.	17,191.20
G. C. McLeod & Company Ltd.	15,669.65
Beckley Campbell Construction Co. Ltd.	13,664.20
Bell & Fountain Contractors Ltd.	11,946.50
Borger Construction Limited ... awarded	**11,719.00**
FOUR STALL HIGHWAY MAINTENANCE GARAGE, ANZAC. June 9, 1966.	
A. V. Carlson Construction Ltd.	81,729.00
St. Laurent Construction Ltd.	79,844.00
Parkins Construction Limited	77,041.00
Matheson Engineering & Construction Ltd.	72,550.00
R. Holzer Construction	66,727.00
Bilodeau & Sons Construction Ltd. ... awarded	**63,840.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
PHASE II, PROVINCIAL MUSEUM AND ARCHIVES, EDMONTON. June 9, 1966.	
Laing Construction and Equipment Limited	$ 5,960,000.00
Universal Construction Co. Ltd.	5,667,949.00
Burns & Dutton Construction (1962) Ltd.	5,643,000.00
Bird Construction Company Limited	5,618,656.00
Commonwealth Construction Company Limited	5,527,300.00
Poole Construction Limited awarded	**5,435,169.00**
WATER AND SEWER EXTENSION, DEPARTMENT OF LANDS AND FORESTS, BOW RIVER HEADQUARTERS, CALGARY. June 16, 1966.	
I. W. Campbell Construction Ltd.	31,870.00
Craig's Welding and Construction	29,580.00
Whissell Enterprises Ltd.	27,257.00
Poole Construction Limited	26,934.20
Borger Construction Limited awarded	**21,945.50**
DEMOLITION AND REMOVAL OF GARAGE AND SHOWROOMS BUILDING, LOTS 27 TO 32, BLOCK 32 ON 7th AVENUE S.W., CALGARY. June 16, 1966.	
	Gov't. to pay:
Richard A. Hilz	11,470.00
Adby Demolition Co. Ltd.	2,975.00
Bill Wearmouth Holdings Ltd. awarded	**900.00**
EIGHT STALL HIGHWAY MAINTENANCE GARAGE, EDSON. June 16, 1966.	
Fort Construction Company Limited	113,155.00
Camwil Construction Ltd.	103,242.00
Bilodeau & Sons Construction Ltd.	99,886.00
Parkins Construction Limited	96,860.00
R. Holzer Construction awarded	**88,988.00**
WATER AND SEWER DISTRIBUTION SYSTEM, WABAMUN PROVINCIAL PARK. June 16, 1966.	
Borger Construction Limited	158,951.25
G. C. McLeod & Company Ltd.	129,262.35
Whissell Enterprises Ltd. awarded	**127,449.75**
FOUR STALL HIGHWAY MAINTENANCE GARAGE, SCOTT LAKE. June 16, 1966.	
J. C. Hughes Contractors Ltd.	78,759.00
Poole Construction Limited	74,744.00
McLean Service & Construction Ltd.	70,345.00
Jason Construction Ltd.	68,069.00
Larwill Construction Company awarded	**63,105.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
WAREHOUSE AND GARAGE BUILDING, BOW RIVER FORESTRY HEADQUARTERS, CALGARY. June 16, 1966.	
Hico Developments Ltd.	$ 111,800.00
J. C. Hughes Contractors Ltd.	105,868.00
Jason Construction Ltd.	98,241.00
Springer Construction Ltd.	91,847.00
Befus Construction Ltd.	91,522.00
McLean Service & Construction Ltd.	91,390.00
Bayker Construction Ltd.	88,080.00
Central Industrial Builders awarded	**79,504.00**
WATER SERVICE INSTALLATION AND RELATED WORK, PROVINCIAL PARK, BOW VALLEY. June 16, 1966.	
Borger Construction Limited	52,394.50
I. W. Campbell Construction Ltd.	45,900.00
Whissell Enterprises Ltd.	43,599.50
G. C. McLeod & Company Ltd.	40,005.00
Craig's Welding & Construction awarded	**39,927.24**
STEAM LINE FROM POWER PLANT, OLIVER, TO THE NEW BELMONT REHABILITATION CENTRE, OLIVER. June 23, 1966.	
G. M. Gest Contractors Limited	209,000.00
Stuart Olson Limited	172,511.00
Lockerbie & Hole Western Limited	158,000.00
Camwil Construction Ltd.	152,419.00
Brown & Root Ltd.	138,700.00
Fraser & Rice Construction Ltd.	137,603.00
Poole Construction Limited awarded	**133,642.00**
PROVINCIAL BUILDING, CLARESHOLM. June 23, 1966.	
Jason Construction Ltd.	194,218.00
Chronik Construction Ltd.	187,806.00
Bayker Construction Ltd.	186,625.00
Hico Developments Ltd.	186,200.00
McLean Service & Construction Ltd.	183,353.00
Bird Construction Company Limited	182,300.00
Glen Little Construction Ltd. awarded	**175,800.00**

CONTRACT TENDERED FOR AND TENDERERS	Amount Bid
FORESTRY DOCK FOR THE DEPARTMENT OF LANDS AND FORESTS, FORT McMURRAY. June 30, 1966.	
Square M. Construction Limited & Coleman Collieries Ltd.	$ 61,300.00
Cascade Builders Limited	54,692.00
Parkins Construction Limited	46,600.00
A. V. Carlson Construction Ltd. awarded	**44,828.00**
FLOOR INSTALLATION FOR ELECTRONIC COMPUTER ROOM, OIL AND GAS CONSERVATION BOARD, CALGARY. July 7, 1966.	
Bruce (EDP) Services Ltd.	7,383.40
Wright Line of Canada Ltd.	7,325.00
The Pedlar People Ltd. awarded	**5,620.00**
RETAINING WALL, SOUTHERN ALBERTA JUBILEE AUDITORIUM, CALGARY. July 7, 1966.	
Walden Construction Ltd.	43,274.00
Befus Construction Ltd.	39,577.00
I. W. Campbell Construction Ltd.	31,575.00
Poole Construction Limited awarded	**29,480.50**
PAVING AND RELATED WORK, DEPARTMENT OF LANDS AND FORESTS YARD, WHITECOURT. July 7, 1966.	
Border Paving Ltd.	26,190.00
Arthur A. Voice Construction Co. Ltd. awarded	**15,803.00**
WATER AND SEWER TREATMENT PLANTS, PROVINCIAL GAOL, PEACE RIVER, ALBERTA. July 14, 1966.	
Fraser and Rice Construction Ltd.	432,266.00
Poole Construction Limited	423,672.00
Universal Construction Co. Ltd. awarded	**417,900.00**
TWO COTTAGES, GARAGE AND ADMINISTRATION BUILDING, SPRUCECLIFF HOME, CALGARY. July 14, 1966.	
I. W. Campbell Construction Ltd.	342,200.00*
Springer Construction Ltd.	333,998.00
Jason Construction Ltd. awarded	**316,228.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
HOME FOR THE AGED, SYLVAN LAKE. July 14, 1966.	
P. W. Graham & Sons Northern Ltd.	$ 349,899.00
Bird Construction Company Limited	333,500.00
Forest Construction Ltd.	331,630.00
Alta-West Construction Ltd.	326,067.00
Universal Construction Co. Ltd.	323,936.00
W. R. Sandquist Construction Ltd.	313,450.00
Harsim Construction Ltd. awarded	**309,300.00**
ALTERATIONS AND ADDITIONS TO DORMITORY No. 2, ALBERTA HOSPITAL, EDMONTON. July 14, 1966.	
Forest Construction Ltd.	387,905.00
Camwil Construction Ltd.	381,808.00
Stuart Olson Limited	374,960.00
W. J. Bennett Contractors Ltd. awarded	**371,462.00**
INSTALLATION OF STORM SEWER, HENRY MARSHALL TORY BUILDING, UNIVERSITY OF ALBERTA, EDMONTON. July 28, 1966.	
N. S. Pawliuk & Son Contracting Ltd.	7,810.00
G. C. McLeod & Company Ltd. awarded	**7,296.40**
TWO COTTAGES, WOODSIDE HOME, EDMONTON. August 4, 1966.	
Profile Homes Limited	256,947.00
Bilodeau & Sons Construction Ltd.	219,000.00
Dornwood Construction Ltd.	206,972.00
D. S. Greenfield Construction Ltd. awarded	**196,000.00**
GRADING, PAVING AND RELATED WORK, POLICE TRAINING SCHOOL, EDMONTON. August 4, 1966.	
W. C. Wells Construction Co. Ltd.	9,279.50
Crown Paving (1966) Ltd.	9,132.00
Everall Construction (Edmonton) Ltd.	8,746.20
O'Hanlon Paving Ltd. awarded	**8,366.00**
GRADING, PAVING AND RELATED WORK, ALBERTA SCHOOL HOSPITAL, RED DEER. August 4, 1966.	
Border Paving Ltd. awarded	**28,045.50**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
MECHANICAL CONTRACT FOR ADDITION TO HEATING PLANT, DEERHOME INSTITUTION, RED DEER. August 4, 1966.	
Brown & Root Ltd.	$ 49,270.00
Northway Plumbing & Mechanical Installations Ltd.	48,753.00
Crest Plumbing & Heating Limited awarded	**42,980.00**
PAVING AND RELATED WORK, PROVINCIAL BUILDING PARKING LOT, GRANDE PRAIRIE. August 11, 1966.	
Everall Construction (Edmonton) Ltd. awarded	**8,642.70**
Wapiti Gravel Suppliers Ltd.	6,267.50*
ENGINEERING CENTRE, PHASE III, UNIVERSITY OF CALGARY, CALGARY. August 11, 1966.	
Universal Construction Co. Ltd.	2,737,325.00
The Foundation Company of Canada Ltd.	2,685,184.00
Poole Construction Limited	2,658,000.00
Bird Construction Company Limited	2,597,700.00
Oland Construction Co. Ltd.	2,596,400.00
Burns & Dutton Construction (1962) Ltd. awarded	**2,587,800.00**
DIAGNOSTIC AND RECEIVING CENTRE, EDMONTON. August 18, 1966.	
Christensen and MacDonald Construction Ltd.	1,245,421.00
Bird Construction Company Limited	1,139,520.00
Poole Construction Limited	1,137,322.00
Morin Bros. Construction & Engineering Ltd.	1,131,244.00
A. V. Carlson Construction Ltd.	1,129,598.00
Forest Construction Ltd.	1,110,850.00
Stuart Olson Limited awarded	**1,110,818.00**
BOW RIVER COOLING WATER SYSTEM, UNIVERSITY OF CALGARY, CALGARY. August 25, 1966.	
Poole Construction Limited	699,000.00
Commonwealth Construction Company Limited	628,000.00
Borger Construction Limited awarded	**518,550.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
ADMINISTRATION BUILDING, ALBERTA HOSPITAL, EDMONTON. August 25, 1966.	
Norman Nilsen Construction Ltd.	$ 119,777.00
Parkins Construction Limited	118,400.00
W. J. Bennett Contractors Ltd.	116,994.00
Bird Construction Co. Ltd.	113,499.00
Camwil Construction Ltd.	112,700.00
Alther Construction Ltd. awarded	**108,948.00**
DAIRY STUDIES BUILDING, AGRICULTURAL AND VOCATIONAL COLLEGE, VERMILION. August 25, 1966.	
Forest Construction Ltd.	109,674.00
Camwil Construction Ltd.	106,460.00
Cormode & Dickson Construction Ltd.	105,649.00
Parkins Construction Limited	103,900.00
A. V. Carlson Construction Ltd. awarded	**98,858.00**
FLOOR AND WALL TILING, AGRICULTURAL AND VOCATIONAL COLLEGE, VERMILION. August 25, 1966.	
"Bob" Candido's Tile & Terrazzo Co. Ltd. awarded	**8,988.00**
PAVING, WALKS AND RELATED WORK, SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY, CALGARY. September 1, 1966.	
Gallelli and Sons Company Limited	49,442.50
Pioneer Paving Ltd.	43,368.75
Standard-General Construction (International) Ltd. awarded	**41,891.00**
PAVING AND RELATED WORK, UNIVERSITY OF ALBERTA, EDMONTON. September 1, 1966.	
Camwil Construction Ltd.	99,544.00
Parkins Construction Limited	66,508.50
Fort Construction Company Limited	62,479.80
Crown Paving (1966) Ltd. awarded	**55,141.40**
GRADING, PAVING AND RELATED WORK FOR THE DEPARTMENT OF LANDS AND FORESTS YARD, PEACE RIVER. September 1, 1966.	
Fraser & Rice Construction Ltd.	38,457.00
Everall Construction (Edmonton) Ltd. awarded	**34,763.00**

CONTRACT TENDERED FOR AND TENDERERS	Amount Bid
DRYING AND SEED EXTRACTION BUILDING, OLIVER. September 1, 1966.	
Brown & Root Ltd.	$ 119,434.00
Norman Nilsen Construction Ltd.	117,555.00
Bird Construction Company Limited	116,365.00
Fort Construction Company Limited	115,969.00
Poole Construction Limited	115,300.00
Forest Construction Ltd.	112,728.00
Camwil Construction Ltd.	112,500.00
W. J. Bennett Contractors Ltd.	111,669.00
Alther Construction Ltd.	110,935.00
Parkins Construction Limited	109,350.00
Harsim Construction Ltd.	105,300.00
McRae & Associates Construction Ltd. .. awarded	**101,999.00**
GRADING, GRAVELLING AND RELATED WORK, FIRE OFFICERS TRAINING SCHOOL, VERMILION. September 1, 1966.	
Eric Nelson Construction Ltd. .... awarded	**6,082.00**
ADDITION TO ANIMAL SCIENCES BUILDING, AGRICULTURAL AND VOCATIONAL COLLEGE, VERMILION. September 1, 1966.	
Norman Nilsen Construction Ltd.	122,222.00
Camwil Construction Ltd.	121,800.00
Parkins Construction Limited	113,500.00
Forest Construction Ltd.	112,818.00
McRae & Associates Construction Ltd.	112,340.00
A. V. Carlson Construction Ltd. .... awarded	**108,838.00**
SEWER AND WATER EXTENSION AND RELATED WORK, FORESTRY TRAINING SCHOOL, HINTON. September 1, 1966.	
Border Paving Ltd.	24,144.50
Tollestrup Construction Co. Ltd.	23,296.00
Whissell Enterprises Ltd.	17,641.00
N. S. Pawliuk & Son Contracting Ltd.	16,867.50
DeVries Bros. Excavating Ltd. .... awarded	**11,747.08**
TREASURY BRANCH, BROOKS. September 8, 1966.	
Bird Construction Company Limited	93,191.00
Jason Construction Ltd.	93,000.00
Eric R. French & Son Ltd. .... awarded	**89,367.00**

CONTRACT TENDERED FOR AND TENDERERS	Amount Bid
ADMINISTRATION BUILDING, MEDICINE HAT. September 15, 1966.	
Oland Construction Co. Ltd.	$ 936,000.00
Julien Construction Ltd.	919,761.00
Poole Construction Limited	905,000.00
Commonwealth Construction Company Limited	903,150.00
Bird Construction Company Limited awarded	**886,800.00**
REPLACEMENT OF PRE-HEAT COILS, PHYSICS-CHEMISTRY BUILDING, UNIVERSITY OF ALBERTA, EDMONTON. September 22, 1966.	
Industrial Power Installations (Edmonton) Ltd.	51,040.00
Lockerbie and Hole Western Limited awarded	**47,800.00**
EXTENSION OF WATER AND SEWER SERVICES AND RELATED WORK, DEPARTMENT OF HIGHWAYS YARD, SOUTHEAST EDMONTON. September 22, 1966.	
Arthur A. Voice Construction Co. Ltd.	132,037.00
Whissell Enterprises Ltd.	125,050.00
N. S. Pawliuk & Son Contracting Ltd.	111,249.50
G. C. McLeod & Company Ltd.	110,113.60
Borger Construction Limited awarded	**108,241.50**
REPLACEMENT OF ROOFING, SCHOOL FOR THE DEAF, EDMONTON. September 29, 1966.	
Christensen & McLean Roofing Ltd.	44,700.00
Freeze Maxwell Co. Ltd.	38,716.00
Wilson Brothers Industries Ltd.	35,525.00
Midwest Roofing & Maintenance Ltd. awarded	**34,957.00**
TWO SIX-MAN HOUSES, WELFARE CENTRE, GUNN. October 13, 1966.	
R. Holzer Construction	42,579.00
Bilodeau & Sons Construction Ltd.	38,900.00
Alther Construction Ltd. awarded	**37,678.00**
GARAGE AND WAREHOUSE, DEPARTMENT OF LANDS AND FORESTS, HINTON. October 13, 1966.	
Bilodeau & Sons Construction Ltd.	72,800.00
Panorama Construction Ltd.	69,677.00
Parkins Construction Ltd.	69,000.00
R. Holzer Construction	68,200.00
Alther Construction Ltd. awarded	**65,277.00**

CONTRACT TENDERED FOR AND TENDERERS		Amount Bid
SANITARY SEWAGE SYSTEM, CYPRESS HILLS PROVINCIAL PARK, ELKWATER. October 13, 1966.		
G. C. McLeod & Company Ltd.		$ 446,677.25
I. W. Campbell Construction Ltd.	awarded	**345,330.00**
PROVINCIAL BUILDING, CASTOR. October 20, 1966.		
Parkins Construction Ltd.		254,000.00
Newbert Construction & Engineering Ltd.		252,625.00
Camwil Construction Ltd.		247,660.00
Jason Construction Ltd.	awarded	**243,073.00**
EDUCATION BUILDING, UNIVERSITY OF CALGARY, CALGARY. November 3, 1966		
Universal Construction Co. Ltd.		5,669,966.00
Bird Construction Company Limited		5,614,640.00
Oland Construction Co. Ltd.		5,589,200.00
Foundation Company of Canada Limited		5,554,000.00
Poole Construction Limited		5,424,000.00
Burns & Dutton Construction (1962) Ltd.	awarded	**5,347,500.00**
DEMOLITION AND/OR REMOVAL OF STRUCTURES AT 4801 - 50 AVENUE, ST. PAUL. November 3, 1966.		Gov't. to pay:
Noel & Blanchette		7,385.00
Adby Demolition Co. Ltd.	awarded	**5,525.00**
DEMOLITION AND/OR REMOVAL OF BUILDINGS ON LOTS 1, 2 AND 3, BLOCK 2, ATHABASCA. November 3, 1966.		Gov't. to pay:
Leo Vincent		28,500.00
Adby Demolition Co. Ltd.	awarded	**6,927.00**
DEMOLITION AND/OR REMOVAL OF RESIDENCE AND GARAGE, 442 - 1 STREET S.E., MEDICINE HAT. November 3, 1966.		Gov't. to pay:
Adby Demolition Co. Ltd.		3,300.00
Medicine Hat Contractors Ltd.	awarded	**3,000.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
GRADING, GRAVELLING, PAVING, STREET LIGHTS, AND RELATED WORK, DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS BUILDING, CALGARY. November 3, 1966.	
Standard-General Construction (International) Ltd.	$ 176,515.00
Pioneer Paving Ltd.	171,542.00
Gallelli & Sons Co. Ltd. awarded	**157,463.00**
ADDITION TO HEATING PLANT, SCHOOL FOR THE DEAF, EDMONTON. November 3, 1966.	
Petrie Engineering Ltd.	93,150.00
Fort Construction Company Limited	74,661.00
Parkins Construction Ltd.	73,850.00
Camwil Construction Ltd.	67,876.00
Northway Plumbing & Mechanical Installations Ltd.	64,321.00
R. Holzer Construction awarded	**64,312.00**
EXTENSION OF PAVING, DEPARTMENT OF PUBLIC WORKS SHOPS, EDMONTON. November 10, 1966.	
Ideal Paving and Construction Co. Alberta Ltd. awarded	**3,855.00**
DORMITORY No. 5, ALBERTA HOSPITAL, CLARESHOLM. November 10, 1966.	
Poole Construction Limited	409,588.00
Kenwood Engineering Construction Ltd.	402,000.00
Bird Construction Company Limited	395,800.00
Jason Construction Ltd.	394,700.00
Cascade Builders Limited	389,466.00
Arias (Spanish) Construction Ltd. awarded	**357,122.00**
STUDENTS' RESIDENCE BUILDING, AGRICULTURAL AND VOCATIONAL COLLEGE, OLDS. November 10, 1966.	
Poole Construction Limited	3,085,000.00
Foundation Company of Canada Limited	3,023,000.00
Bird Construction Company Limited	2,976,600.00
Oland Construction Co. Ltd. awarded	**2,908,200.00**
HOME ECONOMICS, COMMERCIAL AND ACADEMIC BUILDING, AGRICULTURAL AND VOCATIONAL COLLEGE, VERMILION. November 10, 1966.	
Poole Construction Limited	423,864.00
A. V. Carlson Construction Ltd. awarded	**412,812.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
GRADING, GRAVELLING AND RELATED WORK, BOW RIVER FORESTRY HEADQUARTERS, CALGARY. November 10, 1966.	
Standard-General Construction (International) Ltd.	$ 7,546.00
Pioneer Paving Ltd.	7,470.00
Gallelli Construction Materials Ltd. awarded	**7,300.00**
SUPPLY AND INSTALLATION OF CERAMIC TILE TO DORMITORIES No. 8 and No. 11, NEW ADMINISTRATION BUILDING, ALBERTA HOSPITAL, PONOKA. November 10, 1966.	
Associated Tile & Terrazzo Ltd.	14,700.00
Reeson Tile & Terrazzo Ltd.	14,115.00
"Bob" Candido's Tile & Terrazzo Co. Ltd. awarded	**13,443.00**
GRADING, GRAVELLING, PAVING, STREET LIGHTING AND RELATED WORK, ALCOHOLISM IN-PATIENT TREATMENT CENTRE, EDMONTON. November 10, 1966.	
Crown Paving (1966) Ltd.	108,701.30
Poole Engineering Company Limited	106,742.50
W. C. Wells Construction Co. Ltd.	104,217.50
Everall Construction (Edmonton) Ltd. awarded	**99,236.00**
WATER AND SEWER EXTENSION, PROVINCIAL GAOL, PEACE RIVER. November 10, 1966.	
J. T. Fraser Construction Ltd.	21,712.00
Whissell Enterprises Ltd. awarded	**20,147.50**
WATER AND SEWER EXTENSION AND RELATED WORK, AGRICULTURAL AND VOCATIONAL COLLEGE, VERMILION. November 17, 1966.	
G. C. McLeod & Company Ltd.	105,459.00
Whissell Enterprises Ltd.	102,272.50
Borger Construction Limited awarded	**88,001.25**
ADDITION TO STAFF HOUSE, BUILDING No. 2, DEMONSTRATION FARM, BROOKS. November 24, 1966.	
Bird Construction Company Limited	77,600.00
Jason Construction Ltd.	76,884.00
Paul Stober Construction Ltd.	74,248.00
Johnson Construction Co. Ltd.	72,795.00
F. Wahl Construction Ltd.	70,700.00
Larwill Construction Co. Ltd.	69,294.65*
Eric R. French & Son Ltd. awarded	**68,123.00**

CONTRACT TENDERED FOR AND TENDERERS	Amount Bid
ADDITION TO REFRIGERATION, ADMINISTRATION BUILDING, PROVINCIAL GAOL, CALGARY. November 24, 1966.	
Fred Deeves & Son Limited	$ 61,978.00
Atwater Plumbing & Heating Ltd. awarded	**61,284.00**
G. M. Gest Contractors Limited	53,839.00*
FARM STRUCTURES AND FARM MACHINERY LABORATORY, AGRICULTURAL AND VOCATIONAL COLLEGE, FAIRVIEW. December 8, 1966.	
W. J. Bennett Contractors Ltd.	292,650.00
Norman Nilsen Construction Ltd.	276,262.00
Universal Construction Co. Ltd.	276,109.00
Camwil Construction Ltd.	269,468.00
Poole Construction Limited awarded	**251,221.00**
GIRLS' RESIDENCE, AGRICULTURAL AND VOCATIONAL COLLEGE, FAIRVIEW. December 8, 1966.	
Cascade Builders Limited	454,545.00
Poole Construction Limited	422,925.00
W. J. Bennett Contractors Ltd.	417,375.00
Universal Construction Co. Ltd. awarded	**411,327.00**
ADDITION TO PROVINCIAL BUILDING, EMERGENCY MEASURES ORGANIZATION, GRANDE PRAIRIE. December 15, 1966.	
Parkins Construction Ltd.	60,525.00
Norman Nilsen Construction Ltd.	49,650.00
D & B Bldg. Contractors Ltd.	47,367.00
Fraser & Rice Construction Ltd.	47,291.00
Westwood Construction (Edmonton) Ltd.	45,490.00
Cormode and Dickson Construction Ltd. awarded	**42,972.00**
BUNKHOUSE FOR DEPARTMENT OF LANDS AND FORESTS, PEACE RIVER. December 15, 1966.	
Bilodeau & Sons Construction Ltd.	48,582.00
Parkins Construction Ltd.	42,925.00
Briden Construction Ltd.	42,344.00
Norman Nilsen Construction Ltd.	41,541.00
Camwil Construction Ltd.	39,640.00
Lahey Construction Peace River Ltd. awarded	**34,997.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
SUPPLY AND INSTALLATION OF SEWER AND WATER EXTENSION, AGRICULTURAL AND VOCATIONAL COLLEGE, OLDS. December 15, 1966.	
Whissell Enterprises Ltd.	$ 29,774.25
Poole Construction Limited	23,459.00
I. W. Campbell Construction Ltd.	20,849.00
Borger Construction Limited	20,181.50
Jason Construction Limited	19,359.00
Burns & Dutton Construction (1962) Ltd.	18,997.50
DeVries Bros. Excavating Ltd. awarded	**16,466.87**
PROVINCIAL BUILDING, OLDS. December 22, 1966.	
Springer Construction Ltd.	387,936.00
Camwil Construction Ltd.	384,800.00
I. W. Campbell Construction Ltd.	365,000.00
Commonwealth Construction Company Limited	351,565.00
Poole Construction Limited	349,900.00
Fort Construction Company Limited	349,408.00
Rendek Construction Ltd.	348,843.00
Oland Construction Co. Ltd.	347,500.00
Jason Construction Limited awarded	**344,028.00**
NORTH LOOP SERVICES TUNNEL, UNIVERSITY OF ALBERTA, EDMONTON. December 22, 1966.	
Circular	
Fred Welsh & Son Ltd.	4,790,231.20
Poole Construction Limited	4,420,000.00
Rectangular	
Christensen and Macdonald Construction Ltd.	3,909,944.00
Bird Construction Co. Ltd.	3,789,057.00
Universal Construction Co. Ltd.	3,765,432.00
Alta-West Construction Ltd.	3,412,167.00
Poole Construction Limited	3,494,000.00
Brown & Root Ltd.	3,363,000.00
Burns & Dutton Construction (1962) Ltd. awarded	**3,294,500.00**

CONTRACT TENDERED FOR AND TENDERERS	Amount Bid
PROVINCIAL BUILDING, FALHER. January 12, 1967.	
Morin Bros. Const. & Engineering Ltd.	$ 308,874.00
Universal Construction Co. Ltd.	291,991.00
Camwil Construction Ltd.	286,682.00
Parkins Construction Ltd.	284,650.00
McRae & Associates Construction Ltd.	283,738.00
Fort Construction Company Limited	276,835.00
Enterprise Building Contractors	269,727.00
Norman Nilsen Construction Ltd.	267,719.00
Rendek Construction Ltd.	265,562.00
Fraser & Rice Construction Ltd.	263,200.00
Lahey Construction Peace River Ltd.	261,974.00
Bird Construction Co. Ltd. awarded	**261,612.00**
FOUR STALL HIGHWAY MAINTENANCE GARAGE, LETHBRIDGE. January 12, 1967.	
Bilodeau & Sons Construction Ltd.	63,800.00
Jason Construction Ltd.	61,878.00
Chronik Construction Ltd.	61,805.00
Bird Construction Company Limited	58,400.00
Getkate Masonry Construction Ltd.	55,188.00
Arias (Spanish) Construction Ltd. awarded	**53,315.00**
BUNKHOUSE AND ADDITION TO FOUR STALL GARAGE, WHITECOURT. January 12, 1967.	
Jason Construction Ltd.	50,777.00
Parkins Construction Ltd.	49,180.00
Norman Nilsen Construction Ltd.	47,777.00
Fort Construction Company Limited	47,500.00
Alther Construction Ltd.	46,748.00
Joslyn & Olsen Contractors Ltd.	42,339.00
R. Holzer Construction awarded	**38,589.00**
FOUR STALL HIGHWAY MAINTENANCE GARAGE, SWAN HILLS. January 19, 1967.	
Fort Construction Company Limited	73,931.00
Jason Construction Ltd.	67,702.00
Norman Nilsen Construction Ltd.	66,222.00
Alther Construction Ltd.	61,446.00
Joslyn & Olsen Contractors Ltd.	59,190.00
Bilodeau & Sons Construction Ltd. awarded	**57,900.00**

CONTRACT TENDERED FOR AND TENDERERS	**Amount Bid**
CENTRAL HEATING PLANT AND SERVICES DISTRIBUTION SYSTEM, AGRICULTURAL AND VOCATIONAL COLLEGE, OLDS. February 16, 1967.	
Burns & Dutton Construction (1962) Ltd.	$ 919,935.30
Bird Construction Company Limited	879,800.00
Fort Construction Company Limited	871,559.00
Harsim Construction Limited	868,600.00
Poole Construction Limited	868,196.00
Oland Construction Co. Ltd. awarded	**848,600.00**
CENTRAL HEATING PLANT AND SERVICES DISTRIBUTION SYSTEM, AGRICULTURAL AND VOCATIONAL COLLEGE, VERMILION. February 16, 1967.	
Borger Construction Ltd.	976,000.00
Universal Construction Co. Ltd.	897,654.00
Poole Construction Limited	849,600.00
A. V. Carlson Construction Limited	843,411.00
Bird Construction Co. Ltd.	839,405.00
W. J. Bennett Contractors Ltd.	830,350.00
Norman Nilsen Construction Ltd.	818,825.00
Brown & Root Ltd. awarded	**811,355.00**
CENTRAL HEATING PLANT AND SERVICES DISTRIBUTION SYSTEM, AGRICULTURAL AND VOCATIONAL COLLEGE, FAIRVIEW. February 16, 1967.	
Camwil Construction Ltd.	1,169,000.00
Parkins Construction Ltd.	1,120,599.90
Brown & Root Ltd.	1,080,349.00
Universal Construction Co. Ltd.	1,075,678.00
Bird Construction Company Limited	1,067,928.00
Poole Construction Limited awarded	**1,066,800.00**
CONSOLIDATED LABORATORIES FOR THE DEPARTMENT OF AGRICULTURE, EDMONTON. February 23, 1967.	
Laing Construction and Equipment Limited	4,363,021.00
Alta-West Construction Ltd.	4,269,888.00
Burns & Dutton Construction (1962) Ltd.	4,235,494.00
Christensen and Macdonald Construction Ltd.	4,228,000.00
Poole Construction Limited	4,225,000.00
Bird Construction Company Limited	4,215,215.00
Universal Construction Co. Ltd. awarded	**4,199,458.00**

CONTRACT TENDERED FOR AND TENDERERS		Amount Bid
ADDITION TO CALGARY HALL, UNIVERSITY OF CALGARY, CALGARY. February 23, 1967.		
Poole Construction Limited	$	766,766.00
Burns & Dutton Construction (1962) Ltd.		749,000.00
Oland Construction Co. Ltd.		748,200.00
Bennett & White Alberta (1963) Ltd.		738,991.00
Bird Construction Company Limited		704,995.00
Commonwealth Construction Company Limited .... awarded		**703,755.00**
DEMOLITION OF FEMALE WARDS No. 7 and No. 8, ALBERTA HOSPITAL, PONOKA. February 23, 1967.		
		Gov't. to pay:
Norman Nilsen Construction Ltd.		27,777.00
Teralta Construction & Supply Ltd.		9,450.00
Adby Demolition Co. Ltd.		8,350.00
Bill Wearmouth Holdings Ltd. .... awarded		**7,870.00**
M. Galloway		4,500.00*
REPAIR SHOP FOR DEPARTMENT OF HIGHWAYS, EDSON. March 2, 1967.		
Prism Construction Company Ltd.		127,893.00*
Fort Construction Company Limited		121,304.00
Jason Construction Limited		119,335.00
Joslyn & Olsen Contractors Ltd.		118,806.00
Alther Construction Ltd.		115,675.00
R. Holzer Construction .... awarded		**114,910.00**
BUNKHOUSE FOR DEPARTMENT OF LANDS AND FORESTS, FOOTNER LAKE. March 2, 1967.		
Camwil Construction Ltd.		44,592.00
Jason Construction Ltd.		41,808.00
St. Laurent Construction Ltd.		39,906.00
Norman Nilsen Construction Ltd. .... awarded		**39,676.00**
Harrigan Industries Limited		16,500.00*

CONTRACT TENDERED FOR AND TENDERERS		Amount Bid

REPAIR SHOP FOR DEPARTMENT OF HIGHWAYS, LAC LA BICHE. March 2, 1967.

Enterprise Building Contractors		$ 122,995.00
Fort Construction Company Limited		121,020.00
McRae & Associates Construction Ltd.		120,465.00
A. Bordeleau Workshop & Building Materials Co. Ltd.		118,985.00
Joslyn & Olsen Contractors Ltd.		116,996.00
Velere's Construction Co. Ltd.		115,281.00
Jason Construction Ltd.		113,775.00
Alther Construction Ltd.		113,377.00
M & M Construction Co. Ltd.	awarded	**112,990.00**

DEMOLITION AND REMOVAL OF THE PADAN DORMITORY, ROSEHAVEN HOME, CAMROSE. March 2, 1967.

		Gov't. to pay:
Noel & Blanchette		3,900.00
Adby Demolition Co. Ltd.		2,109.00
Bill Wearmouth Holdings Ltd.	awarded	**1,675.00**

DEMOLITION AND/OR REMOVAL OF RESIDENCE AND GARAGE AT 12941 - 97 STREET, EDMONTON. March 2, 1967.

		Gov't. to pay:
Michael Kirstiuk Excavating Contractor		1,485.00
Adby Demolition Co. Ltd.	awarded	**680.00**

ADDITION TO EDUCATION BUILDING LIBRARY, UNIVERSITY OF ALBERTA, EDMONTON. March 9, 1967.

Parkins Construction Ltd.		257,175.00
Bird Construction Company Limited		249,030.00
Forest Construction Ltd.		238,431.00
Camwil Construction Ltd.		237,551.00
W. J. Bennett Contractors Ltd.		236,708.00
A. V. Carlson Construction Ltd.		235,979.00
Stuart Olson Limited		235,777.00
Poole Construction Limited		229,900.00
Harsim Construction Limited		227,800.00
Norman Nilsen Construction	awarded	**224,858.00**

CONTRACT TENDERED FOR AND TENDERERS		**Amount Bid**
BIOLOGICAL SCIENCES BUILDING, PHASE I, UNIVERSITY OF ALBERTA, EDMONTON. March 9, 1967.		
Marwell Construction Limited		$ 6,432,000.00
Bird Construction Company Limited		6,247,767.00
Commonwealth Construction Company Limited		6,240,412.00
Universal Construction Co. Ltd.		6,139,873.00
Poole Construction Limited		6,120,800.00
Alta-West Construction Ltd.		6,093,093.00
Burns & Dutton Construction (1962) Ltd.		6,070,000.00
Laing Construction & Equipment Limited		6,058,000.00
Christensen and Macdonald Construction Ltd.	awarded	**6,036,684.00**
"J" WING, NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY, EDMONTON. March 16, 1967.		
Marwell Construction Limited		1,346,214.00
W. J. Bennett Contractors Ltd.		1,299,277.00
Christensen and Macdonald Construction Ltd.		1,285,290.00
Bird Construction Co. Ltd.		1,284,286.00
Harsim Construction Ltd.		1,283,300.00
Burns & Dutton Construction (1962) Ltd.		1,283,000.00
Forest Construction Ltd.		1,282,889.00
Alta-West Construction Ltd.		1,277,111.00
Poole Construction Limited	awarded	**1,275,951.00**
TREASURY BRANCH, VULCAN. March 23, 1967.		
Commonwealth Construction Company Limited		97,531.00
Glen Little Construction Ltd.		96,800.00
Fort Construction Company Limited		94,226.00
Dunford Construction Ltd.		91,239.00
Arias (Spanish) Construction Ltd.		90,633.00
Larwill Construction Company Ltd.		87,774.00
Eric R. French & Son Ltd.		87,073.00
Jason Construction Ltd.	awarded	**79,800.00**
DEMOLITION OF PROPERTY ON LOTS 15, 16 AND 17, BLOCK 3, STETTLER. March 30, 1967.		
		Gov't. to pay:
Saracen Construction Ltd.		5,350.00
Adby Demolition Co. Ltd.	awarded	**1,765.00**

CONTRACT TENDERED FOR AND TENDERERS		Amount Bid
DEMOLITION AND/OR REMOVAL OF RESIDENCE AND GARAGE, ALBERTA HOSPITAL, CLARESHOLM. March 30, 1967.		
		Gov't. to pay:
Ray Ell's Moving		$ 3,235.70
Adby Demolition Co. Ltd.	awarded	**1,380.00**

TENDERS CALLED ON THE BEHALF OF THE ALBERTA LIQUOR CONTROL BOARD

ALBERTA GOVERNMENT LIQUOR STORE, VEGREVILLE. August 11, 1966.

Bilodeau & Sons Construction Ltd.		66,708.00
Otto Lucius Construction Limited		56,860.00
Fort Construction Company Limited		56,274.00
Forest Construction Ltd.		55,781.00
Alther Construction Ltd.		54,705.00
Briden Construction Ltd.		49,840.00
Cormode and Dickson Construction Ltd.		49,798.00
Norman Nilsen Construction Ltd.		48,877.00
Westwood Construction (Edmonton) Ltd.	awarded	**42,197.00**

ALBERTA GOVERNMENT LIQUOR STORE, MILK RIVER. September 8, 1966.

Jason Construction Ltd.		49,207.00
Arias (Spanish) Construction Ltd.		48,735.00
Getkate Masonry Construction Ltd.	awarded	**44,397.00**

ALBERTA GOVERNMENT LIQUOR STORE, VAUXHALL. September 8, 1966.

Bilodeau & Sons Construction Ltd.		61,980.00
Bond and Leitch Ltd.		49,850.00
Tom's Construction Ltd.		45,971.00
Jason Construction Ltd.		44,976.00
Arias (Spanish) Construction Ltd.	awarded	**42,980.00**
Swanson & Olofson Construction		41,550.00*

PROJECTS COMPLETED IN THE FISCAL YEAR 1966/67

MONTH	PROJECT AND LOCATION	CONTRACTOR	TENDER PRICE	TOTAL CHANGE ORDERS	TOTAL COST	DATE ACCEPTED FROM CONTRACTOR
May	Garage and Warehouse, Fort McMurray	St. Laurent Construction Ltd.	$ 109,708.00	$ 187.00	$ 109,895.00	May 31, 1966
June	4 Stall Garage, Duchess	Bird Construction Co. Ltd.	55,617.00	371.07 cr.	55,245.93	June 2, 1966
	Alterations and Additions to Home for the Aged, Wainwright	R. Holzer Construction	67,663.00	402.60 cr.	67,260.40	June 28, 1966
July	Administration Building, Provincial Gaol, Calgary	Burns & Dutton Construction (1962) Ltd.	737,439.00	10,515.68	747,954.68	July 15, 1966
	4 Stall Garage, Ponoka	Alther Construction Ltd.	57,493.00	375.57 cr.	57,117.43	July 12, 1966
	Vivarium, University of Alberta Farm, Ellerslie	Alta-West Construction Ltd.	167,192.00	498.26 cr.	166,693.74	July 18, 1966
	Home for the Aged, Claresholm	Bird Construction Co. Ltd.	293,750.00	1,519.12	295,269.12	July 22, 1966
	Pilot Plant, Alberta Research Council, Clover Bar	Laing Construction & Equipment Ltd.	823,750.00	13,720.60	837,470.60	July 22, 1966
	Student Nurses' Residence, Red Deer	Harsim Construction Ltd.	527,300.00	9,632.13 cr.	517,667.87	July 22, 1966
	Carpenter Shop, Red Deer	Jason Construction Ltd.	53,500.00	24.42 cr.	53,475.58	July 27, 1966
	Homes for the Aged, Edmonton Belvedere No. 3 Ottewell No. 2 Rosslyn No. 2	Laing Construction & Equipment Ltd.	566,000.00	10,468.41	576,468.41	July 25, 1966 July 29, 1966 August 11, 1966
August	Forestry Dock, Footner Lake	Square M Construction Ltd. & Coleman Collieries Ltd.	26,000.00		26,000.00	August 11, 1966
	4 Stall Garage and Headquarters Office Building, Footner Lake	St. Laurent Construction Ltd.	122,488.00	2,065.81	124,553.81	August 25, 1966
	4 Stall Garage, Hinton	Bilodeau & Sons Construction Ltd.	59,900.00	106.96	60,006.96	August 29, 1966
September	Henry Marshall Tory Building, University of Alberta, Edmonton	Burns & Dutton Construction (1962) Ltd.	5,884,000.00	46,329.94	5,930,329.94	September 12, 1966
	8 Stall Garage, Lac La Biche	P. W. Graham & Sons Ltd.	94,640.00	634.35 cr.	94,005.65	September 29, 1966
	Veterans' Nursing Home, Edmonton	Burns & Dutton Construction (1962) Ltd.	1,386,500.00	54,624.90	1,441,124.90	September 2, 1966
	Home for the Aged, Bashaw	Green Construction Co.	236,135.00	21,134.50	257,269.50	September 30, 1966
October	Administration Building, Woodside Home, Edmonton	Joslyn & Olsen Contractors Ltd.	60,470.00	2,411.49	62,881.49	October 17, 1966
November	4 Stall Garage, Clyde	Joslyn & Olsen Contractors Ltd.	52,203.00	230.74 cr.	51,972.26	November 3, 1966
	Engineering Building, Phase II, University of Calgary	Burns & Dutton Construction (1962) Ltd.	2,744.768.00	3,877.80	2,748,645.80	November 4, 1966
	4 Stall Garage, Anzac	Bilodeau & Sons Construction Ltd.	63,840.00	6,381.28	70,221.28	November 8, 1966
	8 Stall Garage, Edson	R. Holzer Construction	88,988.00	636.33	89,624.33	November 18, 1966
December	Environmental Control Laboratory, Edmonton	D. S. Greenfield Construction Ltd.	138,500.00	9,298.47	147,798.47	December 6, 1966
	Forestry Dock, Fort McMurray	A. V. Carlson Construction Ltd.	44,828.00	77.94	44,905.94	December 7, 1966

MONTH	PROJECT AND LOCATION	CONTRACTOR	TENDER PRICE	TOTAL CHANGE ORDERS	TOTAL COST	DATE ACCEPTED FROM CONTRACTOR
	Addition to Home for the Aged, Cardston	Swanson & Olofson Construction	40,450.00	1,696.72	42,146.72	December 15, 1966
	A.L.C.B. Warehouse, Calgary	Commonwealth Construction Co. Ltd.	1,198,400.00	33,503.85	1,231,903.95	December 22, 1966
	Campsite Shelter and Ski Lodge, Cypress Hills Provincial Park	D & H Construction Ltd.	100,384.00	3,928.34 cr.	96,455.66	December 27, 1966
January	Alcoholism In-Patient Treatment Centre, Edmonton	Poole Construction Ltd.	999,918.00	4,588.25	1,004,506.25	January 4, 1967
	Animal Science Building, Agricultural and Vocational College, Olds	Harsim Construction Ltd.	362,362.00	6,187.76	368,549.76	January 4, 1967
	Office Building Addition, Slave Lake	Parkins Construction Ltd.	54,363.00	324.25 cr.	54,038.75	January 10, 1967
	Receiving Home for Children, Lethbridge	Arias (Spanish) Construction Ltd.	194,204.00	2,462.44	196,666.44	January 12, 1967
	Dairy Studies Building, Agricultural and Vocational College, Vermilion	A. V. Carlson Construction Ltd.	98,858.00	236.84	99,094.84	January 31, 1967
	Kananaskis Science Station, Calgary	Bird Construction Co. Ltd.	178,574.00	946.95 cr.	177,627.05	January 20, 1967
	6 Staff Residences, Peace River	Engineered Homes	129,319.00		129,319.00	January 20, 1967
	4 Stall Garage, Scott Lake	Larwill Construction Co.	63,105.00	1,037.54 cr.	62,067.46	January 24, 1967
February	Departments of Public Works and Highways Building, Calgary	Bennett & White Alberta (1963) Ltd.	1,232,904.00	796.23 cr.	1,232,107.77	February 6, 1967
	4 Stall Garage and Warehouse, Bow River Forestry Headquarters, Calgary	Central Industrial Builders Ltd.	79,504.00	893.55	80,397.55	February 9, 1967
	3 Staff Residences, Fairview	R. R. Cunningham	49,000.00		49,000.00	February 9, 1967
	Tunnel Distribution System, S.A.I.T., Calgary	Bird Construction Co. Ltd.	579,028.00	6,997.64	586,025.64	February 10, 1967
	3 Staff Residences, Slave Lake	Engineered Homes	65,325.00		65,325.00	February 10, 1967
	No. 4 Boiler, Alberta School Hospital, Red Deer	Crest Plumbing & Heating Ltd.	42,980.00	254.00	43,234.00	February 16, 1967
	4 Stall Garage, Magrath	Bird Construction Co. Ltd.	61,900.00	264.78 cr.	61,635.22	February 22, 1967
	2 Six-man Residences, Gunn	Alther Construction Ltd.	37,678.00	73.49	37,751.49	February 23, 1967
	Animal Science Building Addition, Agricultural and Vocational College, Vermilion	A. V. Carlson Construction Ltd.	108,838.00	1,317.83	110,155.83	February 24, 1967
March	Central Heating and Cooling Plant, S.A.I.T., Calgary	Lockerbie & Hole Western Ltd.	1,586,000.00	5,173.98 cr.	1,580,826.02	March 1, 1967
	Home for the Aged, Grande Prairie	D & B Building Contractors Ltd.	293,723.00	5,261.91	298,984.91	March 1, 1967
	Drying and Seed Extraction Plant, Oliver	McRae & Associates Construction	101,999.00	841.34	102,840.00	March 8, 1967
	Storage and Repair Shop, Southeast Edmonton	Christensen and MacDonald Construction Ltd.	2,060,425.00	45,544.38	2,105,969.38	March 9, 1967
	Staff Residences, Olds	Engineered Homes	39,083.00		39,083.00	March 24, 1967
			$24,220,996.00		$24,489,570.68	

Net change orders for all of the above projects equal 1.1% of total tender value.

PROGRAMME OF CONSTRUCTION

Department of Agriculture

Building No. 2, Horticultural Station, Brooks

On November 24, 1966, tenders were received for alterations and construction of a new addition at the Horticultural Station, Brooks. Renovations were mainly in the area of heating and living accommodations. The heating room in the basement was relocated and an additional furnace installed, thus allowing the original furnace to supply heat to the lower levels of the existing building and new addition, while the new furnace supplies heat to the upper levels. The existing heating room became a bedroom with a window installed. Bedrooms on the main floor were also renovated and the female lavatory was renovated and enlarged.

The existing stair at the junction of the addition was removed and a new one put in to form a "split level". Additions were also made, taking advantage of existing grades to allow the lower levels of the new addition to have normal window sill heights. The renovations to the original building covered a total area of 960 square feet.

The new addition, which will house the staff of the station, provides 12 additional bedrooms, each accommodating two persons. Each level has six bedrooms – one floor for male staff and one for female staff. The male lavatory is on the lower level, while the female lavatory is in the existing building, having been enlarged to allow for the extra bedrooms. A lounge has also been included on the upper level along with a laundry room.

Construction of the new addition is basically concrete slab-on-grade, with structural clay tile walls, wood joists in the main floor and rafters in the roof. Walls and ceilings are drywall, while floors are resilient tile. The roof is constructed of built-up felts and gravel with a wooden sun deck to the rear of the second floor.

The floor area added by the new addition is 3,040 square feet which, together with the 960 square feet of renovations to the original building, gives a total increase in area of 4,000 square feet.

Construction is expected to be complete in mid-June, 1967.

Consolidated Laboratories, Edmonton

A contract was awarded in early March, 1967, for the erection of the Agriculture and Wildlife Consolidated Laboratories building in Edmonton. The 10-storey, 123,270 square foot building, to be located north of the Provincial Veterinary Laboratory in southwest

Edmonton, will house a half-dozen practical research facilities now operating in various parts of the city.

The basic structure is cast-in-place reinforced concrete enclosed by sand blasted precast concrete panels designed on the rain screen principle, a system recommended by the Building Research Department for totally air-conditioned buildings. The exterior panels are, in reality, five foot wide service ducts, five feet on centre, running vertically up the building and accommodating risers for the basic heating, ventilating and air-conditioning system. They also house the many services necessary to the function of each laboratory unit which abuts the column, eliminating the costly process of making connections through the concrete floor from the ceiling below.

A common module for each laboratory was considered and the figure of 5 feet seemed to be the common denominator for all. This can be broken down to a smaller grid of 2′6″ and increased to a very economical bay size of 20 feet and further increased to a square tower grid of 100 feet by 100 feet, giving a good ratio of exterior wall to enclosed floor area.

The design for windloading is simplified by this central core of concrete. The tower becomes a natural chimney in which clean, dust-free air can be introduced at a height of 20 feet above the ground, moved upward through the building gathering impurities, and exhausted into the atmosphere 150 feet above the ground.

Partition walls are all non-bearing, composed of steel studs with laminated drywall. Applied finishes shall be chemically resistant wherever required.

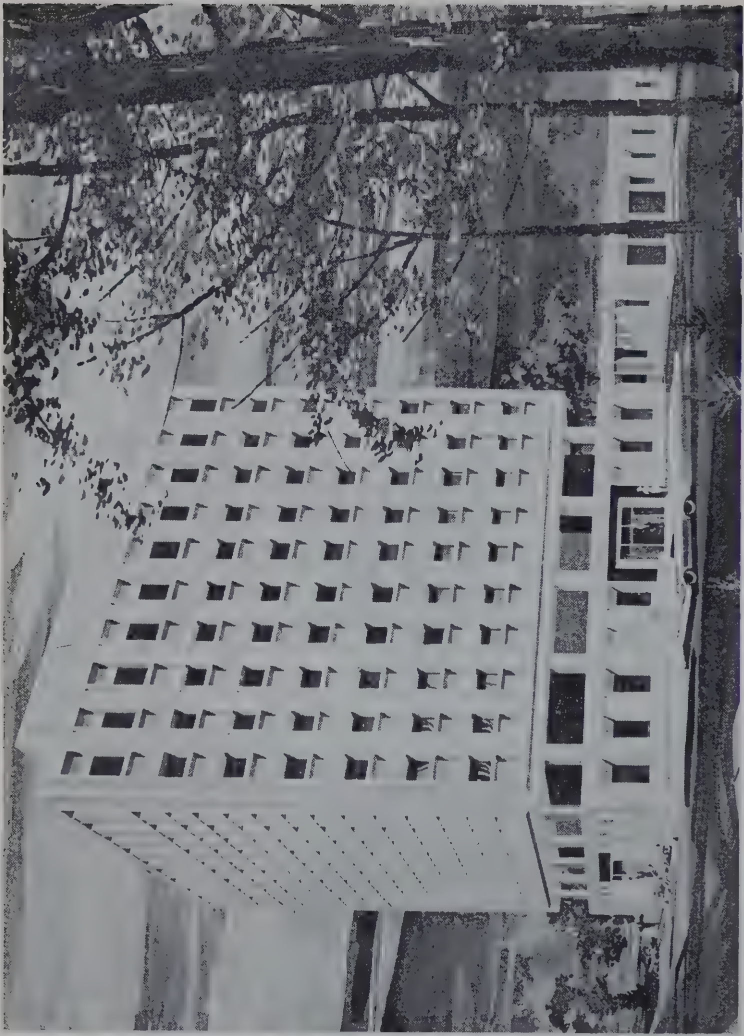
The new laboratory will have a number of unique research facilities, among them two large growth chambers in which researchers will be able to raise full grown trees.

Construction is expected to be complete by the end of April, 1968.

Agricultural and Vocational College, Fairview

Central Heating Plant and Services Distribution System

On February 16, 1967, tenders were received for the construction of a Central Heating Plant and Services Distribution System at the Agricultural and Vocational College, Fairview. This two-part program is expected to be complete by August, 1967. The work of this contract embodies the following:



AGRICULTURE AND WILDLIFE CONSOLIDATED LABORATORIES, EDMONTON

I. Construction of a central, high temperature, hot water heating plant capable of supplying heat to the entire academic portion of the campus (farm area excluded). This plant contains boilers operating at temperatures and pressures required by law and which are under twenty-four hour supervision by qualified stationary engineers.

II. Construction of a system of ducts and pipes buried in the ground, carrying the following services to the campus buildings:

   (a) High temperature hot water
   (b) Electrical power
   (c) Communications
   (d) Domestic water
   (e) Natural gas
   (f) Storm sewer
   (g) Sanitary sewer

   The installation of these services results in the almost complete abandonment of existing services.

Buildings recently designed for this campus did not have heating plants incorporated in them, but were designed to be connected to the central heating plant.

Farm Structures and Farm Machinery Laboratory

Construction commenced on December 14, 1966, on a Farm Structures and Farm Machinery Laboratory at the Agricultural and Vocational College, Fairview.

The building consists primarily of a large enclosed space measuring 90 feet by 96 feet, with a floor-to-ceiling height of 16 feet under the beams. At one end of this area are two smaller working areas of approximately 625 square feet each, two stairwells, washrooms and furnace room areas. Total floor area at grade level is 11,000 square feet. Above the larger areas are two smaller classrooms and two offices, each classroom area being 625 square feet and each office 75 square feet in area. Total floor area of the mezzanine is 2,250 square feet.

Interior finishes in the work areas are exposed poured concrete and exposed concrete block. Floor would be concrete with integrated floor hardener. The ceiling is open web steel joist and fir decking.

Classrooms and office areas will be plaster on concrete block on metal studs, with vinyl asbestos floor and suspended plaster ceilings. Stairwells are finished similarly with non-slip nosings.

Construction is expected to be complete in September, 1967.

Girls' Residence

Tenders were received on December 14, 1966, for the construction of a Girls' Residence at the Fairview Agricultural and Vocational College. The building consists of a total of twenty-five double rooms (each 12 feet by 16 feet), on two floors (each floor has an area of 9,200 square feet). There is a partial basement containing a mechanical room, storage room and laundry. Facilities include a large formal lounge and a recreation room, both with open fireplaces. These rooms are for use by the girls, their parents and guests. Rooms are provided for games, music, typing and television. There is a study room for general use, but each girl has a private study area in her room as well as sleeping and clothes closet facilities. Washrooms are centralized on each floor. There are suites for the Dean of Women and her assistant.

The construction is of load bearing concrete block with concrete floor and roof slabs. The large windows have sun louvres and the exterior finishes are exposed stone aggregate and rough sawn cedar boarding.

A future extension is anticipated which will add between fifty and one hundred girls to the initial occupancy of fifty.

Completion of construction is expected in September, 1967.

Agricultural and Vocational College, Olds

Animal Science Building

Tenders were received on April 7, 1966, for the construction of a new Animal Science Building at the Olds Agricultural and Voca-

ANIMAL SCIENCE BUILDING, OLDS, ALBERTA

tional College. Construction commenced early in May and was completed on January 4, 1967.

The single-storey structure has a gross floor area of 18,700 square feet and includes a lecture theatre, an animal science pavilion for instruction in livestock judging, two lecture rooms, an abattoir for slaughter of animals for study purposes, together with holding pens, a small-animal laboratory, instructors' preparation rooms and the usual ancillary staff and student facilities. Provision has been made in the planning for a future addition to the building.

Construction consists of concrete masonry with some facing brick on the exterior, glue laminated roof beams and wood roof deck with insulation and built-up roofing. Floors are concrete slabs-on-grade, and the load-bearing walls are on concrete strip footings. The heating system in the building consists of standard hot water radiation throughout.

Central Heating Plant and Services Distribution System

Tenders were received on February 16, 1967, for the construction of a Central Heating Plant and Services Distribution System. Earlier, tenders had been received for the sewer and water systems which are a part of the Services Distribution System.

The work of this contract, which is similar to the heating plants being built at Vermilion and Fairview, embodies the following:

I. Construction of a centralized, high temperature, hot water heating plant capable of supplying heat to the entire academic portion of the campus (farm area excluded).

The heating plant, in accordance with the master plan, is located centrally on the campus and consists of a steel framed superstructure erected on reinforced concrete foundations and slab. To maintain architectural continuity, the exterior walls will be of the same brick as the Animal Science and Student Residence buildings. The coloured roof fascia, spandrel and removable panels will be of materials and colours to complement the other buildings.

The plant will contain three 600 h.p. high temperature hot water boilers. They are of a dual firing type gas-oil, with the oil system as the stand-by. Circulating pumps will deliver the high temperature hot water at 360 degrees Fahrenheit, with a pressure range of 185 p.s.i. to 215 p.s.i. to the distribution system. A water treatment system is provided for the high temperature hot water.

The electrical equipment consists of a main 4160 volt three-phase switchboard which serves the entire campus. Within the building the plant transformer, a 4160/600 volt three-phase, supplies power for the plant equipment as well as the Animal Science Building. In addition, a 230 kv emergency generator will be installed for emergency power for the operation of the heating plant. The communications systems, such as fire alarm, clock and telephone, are also terminated in the plant.

II. Construction of a system of ducts and pipes buried in the ground, carrying the following services to the campus buildings:

- (a) High temperature hot water
- (b) Electrical power
- (c) Communications
- (d) Domestic water
- (e) Natural gas
- (f) Storm sewer
- (g) Sanitary sewer

All the service systems, with the exception of power to the farm buildings east of the heating plant, are designed to go underground. The high temperature hot water system is installed on concrete supports and encased in insulating "Z" crete, and covered with precast concrete slabs which will serve as sidewalks through the area. The power and communications systems are carried into the heating plant through an underground duct and manhole system with separate ducts and manholes for each. The sanitary sewer, water and storm sewer systems have been designed to provide capacity for the future development of the area. The installation of these services will result in the almost complete abandonment of the existing services.

Buildings recently designed for this campus have not had heating plants incorporated in them, but were designed to be connected to the central heating system.

Construction on this project is expected to be completed in August, 1967.

Students' Residence

Tenders were received on November 10, 1966, for the construction of a new Students' Residence at the Agricultural and

Vocational College, Olds. To replace the original dormitory building, which was constructed in 1927 and which had reached the limit of its useful life while providing accommodation for only approximately 180 students, the new building will provide accommodation for 494 students when it is completed in July, 1968. Completion is called for in two phases, with Phase I to be complete by the end of 1967, when the students can transfer to the new building, thereby enabling the original building to be demolished and construction of the second phase commenced.

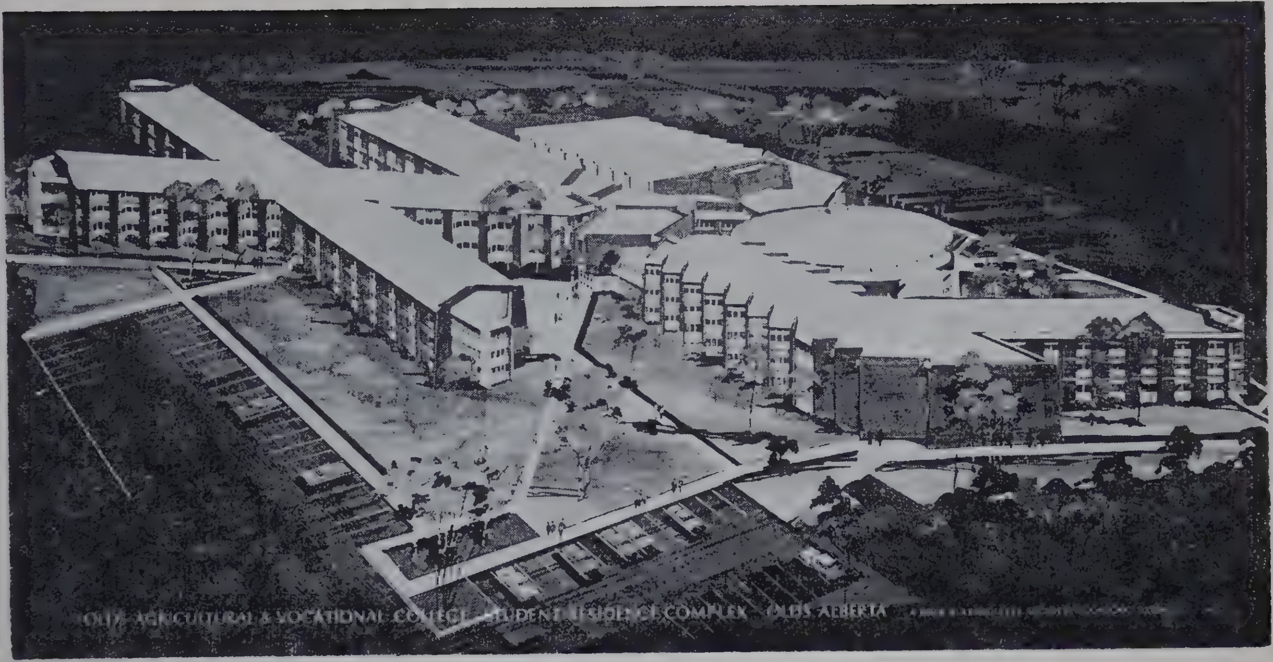
In the design of the new residence, the architect has sought to provide an integrated living complex for the students' social and physical needs and, within it, an environment which will enable them to grow as individuals and as members of a college community interested in all the activities of the campus and of their fellow students. To this end, a plan has been devised which basically provides a total complex broken down into "living, study units" of 25 students each. Each pair of "living, study units" shares a group of washroom facilities, kitchenette and utility and general service rooms.

Each "living unit" is independent and yet integrated with the other units and, at the same time, accessible to the social centre of the residence, that is, its lounge, dining area, recreational facilities and administration offices.

The use of an angular shape enables the new building to wrap around the existing building and thus retain its usefulness until completion of the new project. It also lends interest to the corridors, shortens circulation routes, enables offset corridors to be used and offers three basic types of student accommodation without incurring additional expense, and avoids the barrack-like atmosphere so often associated with the so-called normal rectangular block building readily conceived for this type of residential complex.

The angular shape expressed in the elevation provides angular walls and roof overhangs which will help to offset the direct glare of the sun, reduce heat loads and provide an atmosphere of a residential character expressing each room as an individual living element.

All student facilities outside of living accommodation and utilities are located in a central block easily accessible from any part of the residential wings. The shapes used in the plan form enable easy control of student movement by the administrative staff without "policing"; it provides an informal, relaxed atmosphere to be obtained in the lounge and recreational areas and in the dining room and library.


OLDS AGRICULTURAL & VOCATIONAL COLLEGE—STUDENT RESIDENCE COMPLEX—OLDS, ALBERTA

The gross floor area of the building is approximately 165,000 square feet. It is principally a three-storey building with some basement area, using masonry load-bearing walls with precast floor and roof slabs. The building is faced with brick and precast concrete units. In addition to the living, study units, accommodation is provided for the recreational needs of the students in a full-scale gymnasium. Also provided is a library, a cafeteria and kitchen and administration areas.

Facilities are also provided in the residence building for the Alberta Emergency Measures Organization. These facilities are all housed in basement areas, and the majority of the space so allocated is usable by the College until such time as an emergency may arise.

Drying and Seed Extraction Building, Oliver

Construction commenced on September 1, 1966, on the Drying and Seed Extraction Building at the Department of Agriculture Tree Nursery, Oliver. The building, which has an area of 5,560 square feet, houses equipment for receiving, storing and processing cones and extracting from them tree seeds for planting. The building is principally a one-storey structure with a small second floor over the south wing. A brief description of the operation of the building is as follows:

Cones are delivered in sacks in the main shipping and storage area, where they are unloaded. The cones are then placed on a conveyor at the main floor level which transports them to the upper level and carries them into the scorcher oven from which they are discharged into trays for placing in the three drying kilns. After they are dried, the cones and seeds are subjected to the following processes: shaking, extraction, cleaning, dewinging, grading, sorting and empty cone disposal.

Construction of the building is predominantly reinforced concrete with the lower half of the exterior walls faced in brick and the upper wall exposed. The main floor is of reinforced concrete slab-on-grade, while the second floor is also of reinforced concrete slab supported by columns and beams. The roof of the main building is clear spanned with double T precast concrete roof units and, over the east and west wings, the roof will be of reinforced concrete slab with beam support. Heating is by unit heaters and a forced warm air system, while special exhaust ventilation is supplied in the seed cleaning area. Lighting is fluorescent throughout.

Construction of this building was completed on March 8, 1967.

Agricultural and Vocational College, Vermilion

Addition to Animal Science Building

Tenders were received on September 1, 1966, and a contract was awarded for a 6,700 square foot addition to the Animal Science Building at the Vermilion Agricultural and Vocational College. Construction was completed on February 24, 1967.

Accommodation is provided for two classrooms, two preparation laboratories, two staff offices, dairy poultry laboratory, small student common room and lobby.

The one-storey addition is constructed of concrete masonry laid on a reinforced concrete base. The floors are finished throughout in vinyl asbestos tile. Acoustic tile is featured on the ceiling in corridors, offices, student common room and lobby, while in the instructional area, exposed cedar deck has been utilized.

The building is heated by a hot water heating system which is forced through unit ventilators. Ventilation is provided in all laboratory and preparation rooms.

Central Heating Plant and Services Distribution System

Tenders for the construction of a Central Heating Plant and Services Distribution System at the Agricultural and Vocational College, Vermilion, were received on February 16, 1967. This plant is similar to ones being constructed at Fairview and Olds.

The work of this contract embodies the following:

I. Construction of a central, high temperature, hot water heating plant capable of supplying heat to the entire academic portion of the campus (farm area excluded). This plant contains boilers operating at temperatures and pressures required by law and which are under twenty-four hour supervision by qualified stationary engineers.

II. Construction of a system of ducts and pipes buried in the ground, carrying the following services to the campus buildings:
   (a) High temperature hot water
   (b) Electrical power
   (c) Communications
   (d) Domestic water
   (e) Natural gas
   (f) Storm sewer
   (g) Sanitary sewer

> The installation of these service lines will result in the almost complete abandonment of the existing services.

Buildings recently designed for this campus have not had heating plants incorporated in them. They are designed to be connected to the central heating system. Construction on this project is expected to be complete in August, 1967.

Dairy Studies Building

Tenders were received on August 26, 1966, for a new Dairy Studies Building at the Agricultural and Vocational College, Vermilion. This building will replace the old original dairy barn.

The building will have a gross floor area of 5,300 square feet and will provide accommodation for a milk house, a milking parlour, a small classroom, washroom, a locker room for students, a furnace room and a small office. The milking parlour will have three milking stalls, while the main portion of the building will accommodate 23 comfort stalls for cows and three calf pens.

Construction of the building includes exterior and interior walls of concrete block with a roof system of glulam beams and wood deck, with built-up roofing. The superstructure is supported on a reinforced concrete slab foundation which includes a system of drainage gutters and a manure pit in the main portion of the building. Windows are aluminum clad wood with fixed and opening vents and glazed with sealed units. Floor finishes are generally concrete, except for quarry tile in the milk house and seamless flooring in the vestibule, locker room, lavatory and shower rooms. The classroom has vinyl asbestos floor tiles. Comfort stall and milking stall divisions are in galvanized iron piping. The building is to be heated by a gas-fired forced air furnace for the classroom-locker room area and by gas-fired unit heaters in the main barn portion of the building. Lighting throughout is fluorescent.

The building was completed on January 31, 1967.

Home Economics, Commercial and Academic Building

Tenders were received on November 10, 1966, for the construction of a Home Economics, Commercial and Academic Building at the Agricultural and Vocational College in Vermilion. The building will be a two-storey structure with two wings, the north-south wing being Phase I and the east-west wing, Phase II. Phase I contains 21,856 square feet, while Phase II contains 14,586 square feet.

The building will be a brick and block structure, using two shades of brick for facing materials. End walls and vertical panels will be in rugtex brick with window panels in tapestry brick. The fascia will be of smooth faced brick. The decorative brick panels accenting the entrances will be a combination of smooth and tapestry brick. Block will also be used for interior corridor walls and walls enclosing washroom, smoking room and boiler room.

The block walls are bearing and are reinforced on an 8′0″ module for the exterior wall and a 12′0″ module for the corridor walls. The floor and roof system will be precast joists with dual pans and concrete slab. Main floor ceilings will be 1 hour fire rated acoustic tile. A matching non-rated ceiling will be used on the upper floor, with a rated ceiling in corridor washroom and smoking areas only.

The partition walls will be metal stud with gypsum board. The roof structure will be covered with rigid insulation and an asphalt and gravel roof. An expansion joint will be provided at the centre of the north-south wing.

Windows will be extruded aluminum with thermal break and sealed glazing units. The opening sash will be awning-type, opening out with an underscreen operator. Entrances will be extruded aluminum with single glazing and aluminum glazed doors. Interior vestibule doors will be similar for the main entrance. Metal door frames will be used throughout the interior with solid core birch doors throughout. Glazing will be provided in doors to classrooms and stairwells.

Floors will be vinyl asbestos tile with special floor finishes in certain areas.

The heating system will be hot water, with individual thermostats in each room. Ventilation will be from a control supply with underfloor ducts and supply grilles at the outside wall. A single boiler will be used.

Lighting will be fluorescent throughout.

Construction of this building is expected to be complete by the end of August, 1967.

Department of the Attorney General

Administration Building, Provincial Gaol, Calgary

Construction of this two-storey reinforced concrete building, which was illustrated and described in detail in the 1965/66 Annual Report, was completed on July 15, 1966.

New Belmont Rehabilitation Centre, Edmonton

This project, which was formerly under the jurisdiction of the Attorney General's Department, is now controlled by the Department of Public Health under the new name of Alcoholism In-Patient Treatment Centre. This change became effective on November 1, 1966. The project was completed on January 4, 1967.

Provincial Gaol, Peace River

Construction on the Provincial Gaol, located eight miles west of the Town of Peace River, continued during this fiscal year and is expected to be complete by August 30, 1967. This project was described in detail in the 1965/66 Annual Report.

Department of Education

Southern Alberta Institute of Technology, Calgary

Construction on one of the largest projects handled by the Department of Public Works, the South Complex, continued during the past fiscal year, with various sections being completed and others expected to be complete by the end of 1967. This project was illustrated and described in great detail in the 1965/66 Annual Report.

The source of heating and cooling for the Complex is the Central Heating and Cooling Plant which is located and interconnected to the Complex through an Underground Distribution Tunnel. These projects were completed on March 1, 1967, and February 10, 1967, respectively.

Northern Alberta Institute of Technology, Edmonton

Tenders were received on March 16, 1967, and construction commenced on the "J" Wing at the Northern Alberta Institute of Technology. The "J" Wing will consist of a basement, first and second floors and a penthouse. The basement will have a photographic studio and graphic art room, a television studio with control and equipment rooms, classrooms, instrumentation laboratories, mechanical rooms, physical education storage and washrooms.

The first floor will have entrances, communication, electronic, instrument and pulse laboratories, with storage rooms and washrooms. The second floor will house classrooms, drafting rooms, a student area and washrooms, while the penthouse will contain offices, a mechanical room and a washroom.

SOUTH COMPLEX, SOUTHERN ALBERTA INSTITUTE OF TECHNOLOGY, CALGARY

The structure of the building will be of poured-in-place concrete basement walls, concrete columns and concrete floors. Filling between the outside columns is to be concrete block and face brick. Inside partitions will be of concrete block and/or steel studs, with lath and plaster on both sides and insulation between for sound proofing. Windows on first and second floors will be wood, with some aluminum.

In the basement, the floor finish is to be of vinyl asbestos tiles, while vinyl tiles will be employed on the first and second floors. Entrances are to be slate; floors in the washrooms, landings and stairs will be of terrazzo.

Some areas will have exposed concrete ceilings, but the ceilings in corridors, classrooms, etc., are to be of suspended acoustic tile in the grid system. Washrooms and janitor rooms will have ceilings of suspended lath and plaster.

Door frames are to be pressed steel with plastic laminated or hollow steel doors.

The penthouse will be constructed of steel columns covered with aluminum to form window frames; it will have long span roof joists and a metal deck. Acoustic plaster will be employed on a metal lath ceiling and the floor finish will be of vinyl tile.

Completion of the "J" Wing is expected by the end of February, 1968.

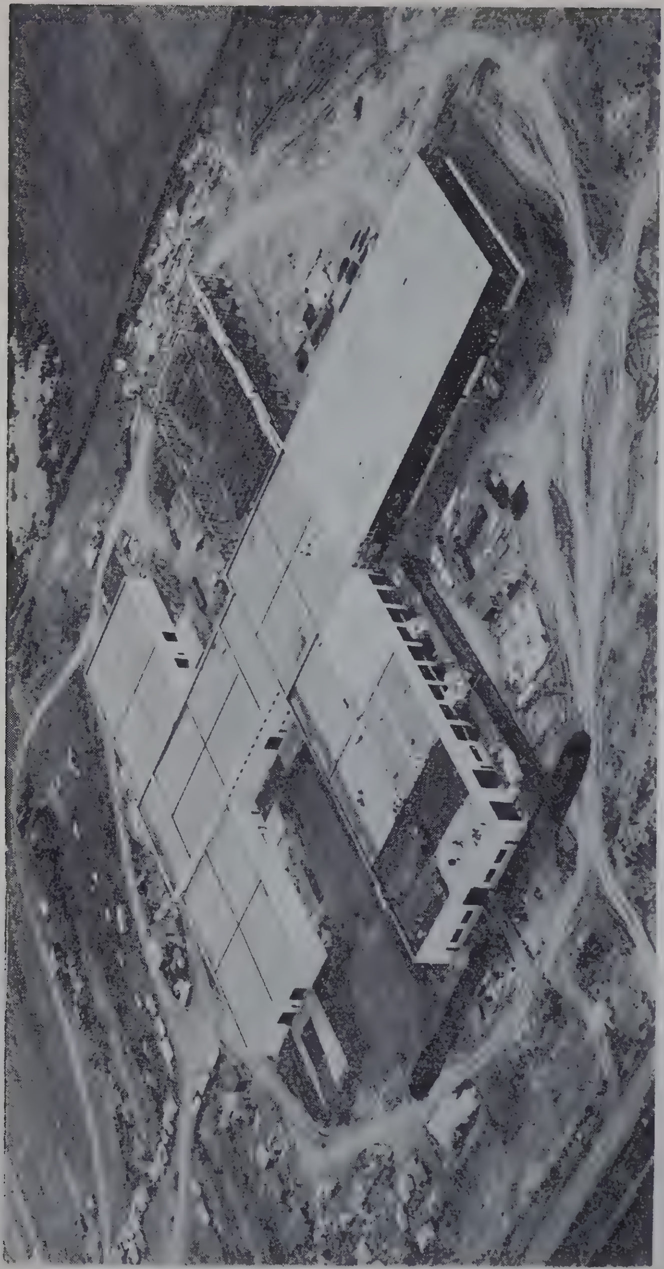
Department of Highways

Department of Highways Building, Calgary

Construction of a combined Department of Public Works and Department of Highways Building in Calgary to provide much needed new space for workshop and administrative functions for these departments was completed on February 6, 1967. This project was described in detail in the 1965/66 Annual Report.

Maintenance and Repair Shops, Edmonton East

Construction of this new maintenance complex was concluded on March 9, 1967, with the completion of the main phase of the development, the Heavy Maintenance and Repair Shops. An eight-stall garage and a salt and paint storage warehouse were completed in 1965, as described in detail in the 1965/66 Annual Report.



HIGHWAY'S MAINTENANCE SHOPS. SOUTHEAST EDMONTON

Repair Shop, Edson

On March 2, 1967, tenders were received for the construction of a Repair Shop in Edson, which is expected to be complete by the end of August, 1967.

This building is a repair centre for a central highway yard, doing repair work for a series of smaller centres. There are five working bays and one washing bay. The parts office, storage, general office and washroom make up the rest of the main floor of some 7,200 square feet. An additional 1,000 square feet are supplied by a mezzanine which is used as a lunchroom, parts storage area and mechanical room.

The structure is basically a frame building with a stucco finish to match the existing eight-stall garage to which it is attached. Floors are concrete slab on the main level with plywood floors on the mezzanine level. The roof system consists of glulam beams, purlins and cedar deck with built-up roofing as finish. The building is heated and lighted for use as work space.

Repair Shop, Lac La Biche

Tenders were received on March 2, 1967, for the construction of a Repair Shop at Lac La Biche. The building is of the same design as those the department has in other parts of the Province.

The structure is a repair centre for a centralized highway yard where repair work will be done for other smaller yards as well.

There are five repair bays and one washing bay, the rest of the 7,200 square feet of the main floor being taken up by a general office, parts department and washroom. A mezzanine provides an extra 1,000 square feet of space for a staff lunchroom, parts storage area and mechanical room.

HIGHWAY'S BUILDING, CALGARY

Construction is basically wood frame with a stucco exterior finish to match an existing eight-stall garage. Main level floors are concrete slabs and mezzanine floors are plywood. The roof is constructed of glulam beams, wood purlins and cedar deck with built-up roofing finish. The building is lighted and heated to the level of a working area. It is expected to be complete in August, 1967.

Highway Maintenance Garages

Construction continued during the year on garages for housing and servicing road equipment at the following sites:

Duchess (four-stall) – commenced December 9, 1965; completed June 2, 1966.

Hinton (four-stall) – commenced March 17, 1966; completed August 29, 1966.

Lac La Biche (eight-stall) – commenced March 17, 1966; completed September 29, 1966.

Clyde (four-stall) – commenced June 1, 1966; completed November 3, 1966.

Anzac (four-stall) – commenced June 14, 1966; completed November 8, 1966.

Edson (eight-stall) – commenced June 23, 1966; completed November 18, 1966.

Scott Lake (four-stall) – commenced June 24, 1966; completed January 24, 1967.

Magrath (four-stall) – commenced June 1, 1966; completed February 22, 1967.

Swan Hills (four-stall) – commenced January 24, 1967; expected completion July, 1967.

Lethbridge (four-stall) – commenced January 18, 1967; expected completion August, 1967.

Department of Lands and Forests

Bow River Forestry Headquarters, Calgary

Tenders were received on June 16, 1966, for construction of a Warehouse and a Four-Stall Garage at this location, and the project was completed on February 9, 1967. These buildings are based on typical service garage and warehouse plans as found at other Forestry Divisional Headquarters sites, but at this location some modifications were made to the exterior treatment.

The warehouse, with 3,360 square feet of space, has a large open space for storage of fire fighting and other materials and has an office, washroom, mechanical room and a small shop. The garage consists of two large and two small service bays with overhead doors, the larger bays being sized to accommodate a helicopter. A small office, washroom and mechanical room are provided. Total space is 2,390 square feet.

Construction consists of concrete floor slabs, concrete block walls, glulam beams, purlins and a wood roof deck. The exterior finishes added at this site are porcelain enamelled steel cladding panels and aluminum facings to the roof edge.

Provincial Park, Cypress Hills

Construction of the Campsite Shelter and Ski Lodge, which was illustrated and described in detail in the 1965/66 Annual Report, was completed on December 27, 1966. This building is intended to serve as a focal point for campers in the Cypress Hills Park and for the many people who make use of the skiing facilities in this area in the wintertime.

Forestry Headquarters, Footner Lake

Work on a four-stall garage and the headquarters office building, which were described in some detail in the 1965/66 Annual Report, was completed on August 25, 1966.

A dock to serve float-equipped aircraft, which was also described in last year's Report, was completed on August 11, 1966.

Tenders were received on March 2, 1967, for a Bunkhouse at Footner Lake. The building, of the same design as other departments have used and are using, is a single-storey construction with a total gross area of 1,440 square feet. It contains five bedrooms, kitchen-dining area, lounge, washroom and utility area. Standard frame construction is used throughout. Floors are finished in linoleum; walls and ceilings are finished in drywall. A forced-air furnace, with ducts located in a crawl space, is used for heating the structure.

Completion of this bunkhouse is expected in July, 1967.

Forestry Headquarters, Fort McMurray

Tenders were received on June 30, 1966, and construction commenced on a Forestry Dock at Fort McMurray. This is a timber piled dock located in the Clearwater River and is to be used by the Department of Lands and Forests for loading and unloading river barges. The design incorporates an adjustable loading ramp and electrically powered jib hoist. Construction was completed on December 7, 1966.

Forestry Headquarters, Hinton

Tenders were received on October 13, 1966, for the erection of a Garage and Warehouse for the Department of Lands and Forests at Hinton. The garage has a main floor area of 3,060 square feet and a second floor area of 160 square feet, for a total area of 3,220 square feet. The main floor consists of six stalls, two of which are to be used as warehouse area; a furnace room and washroom make up the remainder of the main floor. The second floor includes an office and a storage area.

The building has a concrete foundation and floor slab, wood frame walls with plaster and stucco finish, and a glulam beam gabled roof with asphalt shingles.

Completion of construction is expected in April, 1967.

Forestry Headquarters, Peace River

On December 15, 1966, tenders were received for the construction of a Bunkhouse at Peace River. The building is of single-storey construction with a total gross area of 1,440 square feet, containing five bedrooms, kitchen-dining area, lounge, washroom and utility area. Standard frame construction is used throughout. Walls and ceilings are finished with drywall; floors are finished with linoleum. A forced-air furnace, with ducts located in a crawl space, is used for heating the structure.

Completion of this project is expected in June.

Forestry Headquarters, Slave Lake

Construction of an addition to the headquarters office building, which was described in the 1965/66 Annual Report, was completed on January 10, 1967.

Provincial Park, Wabamun

Tenders were called and a contract awarded on June 23 for the construction of a water distribution system and a sewage disposal system for the Provincial Park at Wabamun. The need for a good water and sewage disposal system arose from the increase in the demand for good picnic, camping and trailer park facilities accessible from the City of Edmonton.

A well drilling program was instituted initially to determine the availability of a good supply of water. Two wells were found suitable and were developed. A network of water lines was installed to provide water to the comfort stations, park buildings and the trailer park area. A water reservoir was also constructed to meet the needs of the peak demands.

In order to dispose of the sewage, a sewage lagoon and lift station were constructed. The sewage system is a gravity flow system to the lift station which is located in the centre of the park; the sewage is then pumped into the lagoon.

Construction is expected to be completed in August, 1967.

Forestry Headquarters, Whitecourt

Tenders were received on January 12, 1967, for a two-part construction program at Whitecourt. The program called for the erection of a Bunkhouse and an addition to a four-stall garage.

The bunkhouse is a single-storey construction with a total gross area of 1,440 square feet. It contains five bedrooms, a kitchen-dining area, a lounge, a washroom and utility area. Standard frame construction is used throughout. Walls and ceilings are drywall finish; floors are finished in linoleum. A forced-air furnace, with ducts located in a crawl space, is used for heating the building.

The addition to the garage is constructed of concrete block, wood joists and concrete floor, as is the existing building. Foundations are designed as grade beam on piles. Windows, overhead doors and mechanical and electrical fixtures are the same as those in the existing building.

Completion of construction is expected in June, 1967.

PROVINCIAL MUSEUM AND ARCHIVES, EDMONTON

Department of the Provincial Secretary

Provincial Museum and Archives, Edmonton

Work commenced in September, 1965, on the Province's major Canadian Centennial commemorative project when a contract was awarded for the construction of the foundations and main structural frame of the Provincial Museum and Archives Building in Edmonton. This contract was completed on June 3, 1966. Meanwhile, tenders had been called for the balance of the construction work, consisting of the remainder of the general trades, the mechanical and the electrical work. This portion of the contract, known as Phase II, is expected to be complete in April, 1967. Separate contracts were awarded earlier for sewer and water extensions and for elevators.

The basic objective of the project is to establish a free public museum which will portray and preserve the natural and human history of Alberta and provide related educational services. The object of the archives is to assemble and preserve significant historical documentary materials of Alberta.

In 1962, a Museum Consultant was appointed to formulate a policy and establish the activities which are to be housed within the facilities. Based on these findings, a detailed programme of accommodation was provided.

It was recognized that a project of this significance should be carried out on a level of high quality, architecturally as well as functionally. Therefore, the former site of Government House in Edmonton was chosen. This thirteen and one-half acre site is adjacent to natural surroundings, close to public transportation, has a commanding view of the river valley, is free from natural hazards and has ample room for parking and exterior displays. The site also allows for extensive future expansion of both museum and archives, and has the additional value of being of historical interest itself.

It was initially decided to maintain the old mansion, used until September of 1966 as a veterans' hospital, as part of the museum. The building is physically sound and is one of a few dignified older pieces of architecture in Alberta. Subsequently, it was determined that the ground floor would be restored to its original condition and would provide facilities for the larger official receptions which could not be accommodated in the new Lieutenant Governor's residence.

To clear the way for planning, extensive work was carried out in the form of soil tests, sub-surface condition tests, survey and photography. Investigations also had to be made as to the capacity of services available to the site.

A detailed study of the programme of accommodation provided by the museum consultant of the Provincial Secretary's Department was initiated by the Department of Public Works. The functions and inter-relationship of the various departments of the museum were clarified and from here a traffic pattern of public and staff movements was developed. Exhibition areas can be utilized in conjunction with the public facilities, which include an auditorium, cafeteria and lecture rooms. These functions may also be used independently.

Personnel from the Provincial Secretary's Department and the Department of Public Works went on a fact-finding tour of museums in Canada and the Eastern United States. Detailed information was gathered and museum people interviewed provided much valuable information from their own experiences in building up and running a museum.

Based on this preliminary analysis, an architectural concept was developed. It was agreed that the greatest attempt should be made to preserve the dignity and serenity of the site and keep as many as possible of the present trees and plantings intact. The solution to this was to bring the visitor directly to the heart of the site before entering any building. With the main entrance facing a small plaza, which in turn is defined by the buildings, a degree of intimacy and friendliness is brought about.

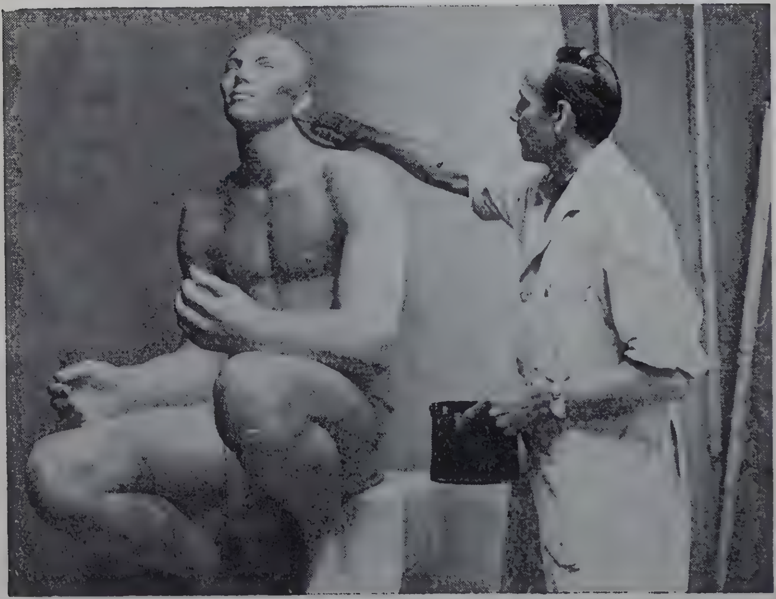
The main museum complex has been kept in one- and two-storey masses with possibility for future horizontal expansion – the archives building at one storey, with future additions vertically.

Architectural treatment, both externally and internally, reflects a concern for clarity and the balance of masses and proportions. A sense of scale has been sought with the effect of light and shadow and applications of various textures. The use of sculpture and relief work serves the same purpose, as well as a means of preserving and recording visual images relating to the history of Alberta.

Mr. Luke Lindoe of Medicine Hat, a former instructor at the Alberta College of Art, Calgary, has been commissioned to execute a large relief in stone. The theme of the work is based on the Indian carvings found in the Writing-On-Stone Provincial Park in Southern Alberta. It will cover five panels, 17 by 24 feet, and will be carved in Tyndall stone. The relief work will be placed on the south wall of the museum auditorium.

Mr. Olle Holmsten, an instructor at the Alberta College of Art, has been commissioned to do five pieces. Included is a large fountain piece. The work, sixteen feet high, will stand in a reflecting pool on the museum grounds. The main concrete structure will

LUKE LINDOE, MEDICINE HAT, AT WORK ON THE STONE RELIEF



OLLE HOLMSTEN WITH THE PLASTER CAST OF THE "STORYTELLER" carry four bronze reliefs depicting the story of man's quest for knowledge.

Other works by Mr. Holmsten will include a five foot high seated figure in bronze. This will be placed on the terrace near the main entrance. A figure group in cast stone, seven feet high, is to stand at the north side of the complex, facing 102 Avenue. In addition, two bronze reliefs depicting human and natural history are to be done for the east and west sides of the complex. These will be eight by sixteen feet.

Negotiations have been carried out with the City of Edmonton, in order that slopes on the south end of the site may be developed as a terraced garden. This was done because extensive landscaping is desirable to bring the whole area into use for public and museum functions.

An enthusiastic programme of objectives and displays has been undertaken by the Museums Branch, Department of the Provincial Secretary, for Alberta's Official Confederation Memorial Project.

The main purpose of the establishment will be to increase public knowledge, wise use and enjoyment of the Province's natural and social heritage. Display galleries are being planned and historical objects, documents and natural history specimens are being collected. Through displays arranged in story sequence, the history of trades, professions, daily lives, creative and religious activities, and regional stories will be presented. The archives will contain collections and arrangements of documentary materials on the history of Alberta.

Besides the expected displays featuring Indian artifacts, exploration, fur trade, settlement and agriculture, the museum will also show several aspects of early industry and commerce.

Daily life in the home and the community is to be portrayed. A special room will highlight the special features of the many ethnic groups in the Province. Religious life, creative activities, prominent people, communities, regions, military organizations and firearms will all be subjects for displays.

Extensive exhibits of Alberta's history in the field of communications, transportation, government, politics and organizations have also been planned.

A series of reconstructed rooms, shops and offices will cover a wide area of interest. School rooms, business and professional offices, a settler's cabin, blacksmith shop, saddlery shop, movie theatre, newspaper office and period living room, bedroom and kitchen displays, plus several others will be featured in this area.

Natural history displays will provide extensive coverage with collections and information on rocks, fossils, insects, birds, mammals, minerals and plants. Field collections and taxidermy are currently being carried out by the Museum Branch staff.

Materials to be housed in the archives will provide documented history of the Province. Government records, political papers, photographs, speeches, surveys, diaries, maps, writings, newspapers, society records, minute books, microfilms and a long list of other historical items will provide an excellent source of information to students, as well as the general public.

The Complex has a total floor area of 246,800 square feet, including basement storage and workshop and mechanical areas. The breakdown of space is as follows:

Public Facilities and Orientation Orientation gallery, lobby entrance, cafeteria, book shop, washrooms – main floor. Lounge – second floor.	26,700 square feet
Display Human and natural history galleries – main and second floors. Archives display, feature galleries – second floor.	46,000 square feet
Auditorium Main auditorium and associated facilities – main floor.	9,000 square feet
Administration Directors' offices and associated offices – main floor.	5,100 square feet
General Services and Work Area Assembly areas for displays and associated works, corridors and service corridors for movement of staff and displays – service entrances.	72,000 square feet
Storage Area Storage of works and materials in both museum and archives.	53,000 square feet
Mechanical Equipment and Services Boiler room, fan room, ducts and service tunnels.	35,000 square feet

Construction is basically of reinforced concrete and long span steel joists for some second floor areas and the entire roof. The building will be faced on the exterior with various textures of Tyndall limestone and a small portion of field stone.

Interior finishes include marble, oak, and limed oak to walls; black granite (thermally treated) and carpet in the orientation, lobby, lounge and auditorium areas. Selected fossil limestone is featured on the side walls of the main entrance. Public areas have accents of bronze on feature screens, escalator trim, stair balustrades, grilles, etc. Other finishes throughout the building include terrazzo and resilient tile on floors and plaster and drywall on walls.

Approximately 45,000 square feet of Thunderstone (slate) surfaces the large plaza in front of the building and extends to the Confederation Court and bus loading zone of the grounds. The Confederation Court, reflecting pool and bus stop have exposed-aggregate concrete floor surfaces and retaining walls.

Several features not found or required in most building projects were incorporated into the design of the mechanical and electrical systems. Some examples of these would be the special attention given to close control of temperature, humidity, noise and dust in the mechanical work and the several security, supervisory and internal communications systems included in the electrical work.

In order to minimize deterioration of most museum exhibits and archives material, it is essential that temperature and humidity be maintained at proper levels and within very close limits. These requirements apply not only to display areas but to storage and work room areas as well; hence, practically the entire building is heated or cooled by air which has been treated to bring it to the proper conditions. In addition, dust and vibration must be kept to an absolute minimum.

To accomplish these requirements, an extensive system of indicating and recording controls is necessary. Since the building is extensive and diversified, it is essential that if the required conditions are not being maintained in some certain area, this should be known quickly. This requires an extensive system of supervisory controls to provide indication of trouble to the operators such as temperature or humidity change or system failure.

All heating is supplied from three 300 h.p. hot water boilers. Two of these operate at the same time with the third as spare. Space is provided for a fourth similar unit in the event of future expansion.

Chilled water for cooling is supplied by a 425 ton electrically driven centrifugal chiller. The cooling tower required for the chiller is located remote from the building to minimize the effect of noise to the surrounding residential area as well as to the museum grounds and building proper. Space is also provided for an additional future chiller of similar capacity.

Some other features included in mechanical work are:

1. Pneumatic tube system for transporting messages and small items between departments.
2. Vacuum system for general janitorial use.
3. Low vacuum system for special cleaning of delicate valuable items.
4. Paint spray booth which can be divided into two smaller booths for separate use or used fully for large work.
5. Numerous small exhaust systems from fume cabinets.
6. Woodworking shop sawdust collection system.
7. Separate systems for auditorium and kitchen-cafeteria.
8. Water recirculating system for "moat" along front of main building.
9. Fire protection sprinklers in underground areas and fire hose stations in other areas.
10. Compressed air supply to work areas.
11. Refrigeration systems for cold storage rooms.

Lighting design included some features which require special attention. Light levels had to be such that exhibits in many forms could be properly displayed, but surrounding areas required a different treatment for proper comfort and ease of viewing by the public. Display areas were provided with very extensive electrical supply systems, both underfloor and overhead, so that power and light could be readily available regardless of how the exhibits were changed or relocated. Provision is also made for moveable spotlights from ceilings to highlight certain areas when required.

In other areas, lighting is provided at different levels for restful decorative effect or for intricate delicate work.

The electrical work also includes several auxiliary systems, some of which are quite common, but others are only found where specially required for some special reason. The auxiliary systems consist of:

1. Door Switch System – This system provides an alarm signal in the central security room when any door in the system is opened. This was required as a security measure to properly cover such a widespread area with numerous doors, many of which cannot be locked because of public safety regulations.

2. Fire Alarm and Detection Systems – These systems consist of the usual fire alarm stations where anyone can signal the fire department, interconnection with the fire sprinkler system to sound an alarm and indicate in what zone the sprinkler system is operating and a system of ionized detectors which provides a similar alarm and indication in areas where sprinklers are not installed.

3. Movement Detection System – This provides an alarm and indication of location of any unauthorized persons moving within the areas under surveillance.

4. Watchman's Tour System – This is the usual system of check-in stations where the touring guard signals to the central security room.

5. Closed Circuit Television Surveillance System – This system provides the duty guard in the central security room a means of observing the areas covered by the television cameras and take the necessary action should theft or vandalism be attempted.

6. Fire Sprinkler Supervision Systems – These systems, interconnected with the sprinkler system, will signal when flow of water occurs in any of the piping, whether due to fire or by a break in the line, and will also indicate if a valve is closed in the sprinkler system, thus preventing flow of water when required.

7. Television Program System – This system provides facilities so that television cameras can be located at several points within the building and broadcast through a mobile unit without the need of heavy temporary cables running along floors throughout the building.

8. Intercommunication System – This is located throughout offices, workshops and other areas where staff will be working.

9. Loudspeaker System – This system provides a means of making announcements to the general public in the building, providing background music or, in special instances, providing sound effects for certain exhibits.

10. Normal Telephone System.

11. Guard Call System – This provides a means of contacting the watchman or guard on duty in any area by a coded system.

12. Supervised Clock System – All clocks throughout the building are controlled from the master unit in the security room.

In addition, provision has been made to have "trouble" signals from the mechanical control system relayed to the security room during the time operators are not on duty in the mechanical rooms.

A natural gas driven emergency generator is installed in the boiler room to provide sufficient light and power to evacuate the building without causing panic, should a power failure occur.

Department of Public Health

Alberta Hospital, Claresholm

Tenders were received on November 10, 1966, for the fifth and last dormitory at Alberta Hospital, Claresholm. The building, which is similar to other dormitories built at this site, has a total floor area of 24,900 square feet, of which 15,600 square feet are on the main floor, 8,070 square feet in the basement and 1,230 square feet in the tunnel connection. The building will accommodate patients in seventeen dormitory areas and in six single bedrooms. Also provided are four day rooms, a dining room, a nurses' station, washrooms, service rooms, storage rooms, linen storage and a staff locker room.

This is basically a single storey frame building which is designed in the form of an "E" with two roof levels, a small area basement and a crawl space under the lower wings. Ground floor construction consists of plywood sheathing over wood joists supported by steel beams and pipe columns and bearing stud walls. Some areas of the main floor are reinforced concrete slabs on concrete beams and columns. Roof construction is flat, of tongued and grooved cedar decking supported by exposed glu-laminated beams on the higher roof level and a roof joist system on the lower roof, all finished with a built-up gravel surfaced roofing. The exterior walls are finished in stucco and brick veneer, pierced with wood constructed windows, having open and fixed sealed glazing units. Interior finish is gypsum plaster throughout with a ceramic tile dado in washrooms; ceilings are plaster with certain areas in acoustic tiles; floor finish is generally sheet lino with terrazzo in wet areas.

Warm air heating and ventilation is provided by steam heated multizone units with provision made for future cooling. Exhaust ventilation is provided by return air grilles from each room, while complete exhaust for washrooms is through roof exhaust fans. Lighting is fluorescent and incandescent throughout.

Construction is expected to be complete in mid-August, 1967.

Alberta Hospital, Edmonton

Construction was initiated during September, 1966, on an addition to the Administration Building at the Alberta Hospital in Edmonton. The two-storey structure has a total gross area of 4,264 square feet which is equally divided between basement and main floor.

The basement level provides accommodation for eight consulting offices, washrooms, vault and mechanical room. The main floor contains seven consulting offices, waiting area, electrical room and washrooms.

Construction is of reinforced concrete. The exterior finish is precast concrete panels of fieldstone which matches the existing building. The interior finish includes vinyl asbestos tile in all areas except for the stairwell and washrooms, which are finished in seamless flooring. Acoustic lay-in panel is utilized in the ceiling of the consulting rooms, waiting areas and electrical area; the remaining ceiling area is suspended plaster.

Heating is accomplished by use of forced hot water through wall fins. Exhaust ventilation is provided in all washrooms.

Construction of the addition is expected to be complete in early May, 1967.

A major renovation project was undertaken when a contract was awarded on July 26, 1966, for alterations and additions to the Dormitory No. 2, at the Alberta Hospital, Edmonton. Work is expected to be complete in April, 1967, and consists of the installation of new interior walls, new suspended ceilings, new doors and frames and renovation to most of the interior finishes. Two new fire exits will be provided and completely new mechanical and electrical systems will be installed in most areas. A separate contract will be awarded for a small amount of kitchen equipment.

Alcoholism In-Patient Treatment Centre, Edmonton

This building, which was formerly under the jurisdiction of the Attorney General's Department, was described in detail in the 1965/66 Annual Report under the title of New Belmont Rehabilitation Centre. This change became effective on November 1, 1966. The project was completed on January 4, 1967.

Cancer Clinic Hospital, Edmonton

Construction continued during the past fiscal year on the 77-bed Cancer Clinic Hospital, located on University Avenue adjacent to the Aberhart Memorial Sanatorium and the new Veterans' Nursing Home. This project was illustrated and described in some detail in the 1965/66 Annual Report. Completion is expected by the end of March, 1968.

Veterans' Nursing Home, Edmonton

Construction on the Veterans' Nursing Home, which was illustrated and described in detail in the 1965/66 Annual Report, was completed on September 2, 1966. The Veterans' Home accommodates one hundred and fifty veterans who were moved from the former hospital at Government House and the Colonel Mewburn Pavilion adjacent to the University of Alberta Hospital.

Student Nurses' Residence, Red Deer

On July 22, 1966, construction of a Student Nurses' Residence at the Alberta School Hospital was completed. Designed to accommodate 100 nurses, the two-storey building is roughly "H" shaped in plan with bedrooms in the wings and administration and recreation space in the central portion. The project was illustrated and described in detail in the 1965/66 issue of the Annual Report.

Department of Public Welfare

Sprucecliff Home, Calgary

Tenders were received on July 14, 1966, and construction commenced on a home for unwed mothers in Calgary. To be known as Sprucecliff Home, the complex will be similar to the Woodside Home in Edmonton. Consisting of two nine-bed cottages, an Administration Building and a Garage and Storage Building, the project is expected to be complete in June, 1967.

Each cottage unit contains seven single bedrooms and one double bedroom with common living, dining, recreation, kitchen and laundry room. Other facilities include a suite for the house

CANCER CLINIC HOSPITAL TO BE KNOWN AS THE DR. W. W. CROSS CANCER INSTITUTE, EDMONTON mother and her assistant, three visiting rooms, and storage for girls' clothing and linen. A feature of the building is the interior courtyard which provides outdoor living for the residents. Construction is wood framed pitched-roof construction surfaced with wood sheathing and asphalt shingles. Exterior wall cladding is vertical V-joint and diagonal bevelled cedar siding with accent panels of wood, frame windows and cement asbestos panels. Interior finish is plaster and accent panels of natural woods are used in different areas. Ceilings are generally plaster with some areas using acoustic tile. Floors throughout are seamless flooring except the heating room, which has a concrete finish. The living room has an open hearth brick fireplace. Windows and exterior walls are wood framed with sealed units in fixed and opening sashes. Heating is by a gas fired forced-air furnace. Exhaust ventilation is provided in all washrooms. Lighting is incandescent throughout except for a few fluorescent fixtures. The outdoor patio is enclosed with a cedar fence.

The Administration Building has a total floor area of 3,680 square feet, contains a four-stall garage for staff members, an elecbasement floor includes a receiving area, two food storage rooms, general supply storage, caretaker's work room, washroom and a furnace room. The main floor has a general office, a waiting area for patients, a clinic with two offices and a dressing room, a multipurpose room, a library, a staff washroom and a patient washroom. A dumb waiter is provided for the dispatch of supplies to the basement. This building has wood frame construction with exterior finish of vertical cedar siding and interior frame walls finished in plaster. Floors are finished with seamless flooring throughout and ceilings are of acoustic plaster. Windows are wood framed with sealed glass units.

The Garage and Storage Building, with a total area of 1,175 square feet, contains a four-stall garage for staff members, an elec-

SPRUCECLIFF HOME, CALGARY

trical room, gas meter room, wood storage, a vegetable room and workshop for maintenance personnel. Construction is of wood frame on reinforced concrete slab-on-grade. The outside of the building is finished with vertical V-joint siding, while interior walls and ceiling are finished in plywood. Heating is by gas fired forced-air furnace for the vegetable storage, gas meter room and workshop. A plug-in for each car is provided. Lighting is fluorescent throughout this building.

Diagnostic and Receiving Centre, Edmonton

Tenders were received on August 25, 1966, for the construction of a Diagnostic and Receiving Centre to be located north of 123 Avenue between 124 and 125 Streets in Edmonton. The project consists of the following:

(a) Three receiving home cottages, each to house ten neglected children, a house mother and a relief house mother.

(b) Two diagnostic units, each to house twenty emotionally disturbed children, where they can be diagnosed and assessed for future placement.

(c) One administration building containing general office facilities, offices for professional staff, classroom facilities, and staff retiring areas.

Wood frame construction is used throughout, except in certain areas of the roof structure where exposed glulam beams and wood decking is employed. Basements and foundations are reinforced concrete with strip footings under basement areas and pile footings under basementless areas. Basements and basementless one storey portions will have concrete sub-floors. Other areas will have wood sub-floors. Roofs are all built-up asphalt and gravel.

The structure has been so designed to give a maximum of soundproofing between floors where needed, in walls between

SPRUCECLIFF HOME, CALGARY, ADMINISTRATION BUILDING offices in the treatment wing of the administration building, and between classrooms.

The basic interior finish is painted or papered gyproc wallboard. Wood panelling has been added in many of the living areas and in the staff conference room. Oak panelling has been added in most corridors for durability. The bedrooms of the diagnostic units have walls of asbestos board. Classroom corridor walls are of brick.

Ceilings are gyproc wallboard, with acoustic tile in corridors and special acoustic treatment in recreation rooms and other noisy areas. Finish flooring includes nylon carpeting for corridors, lobby, office and living areas to minimize the sound, vinyl corlon for bedrooms. kitchen, dining and other areas, and sponge backed corlon where sub-floor is concrete. Plastic laminate is used extensively on counter tops and as door facing in the administration building and diagnostic units. There are a number of built-in units in the project to cut down on both maintenance and damage.

The exterior finish on the diagnostic units and administration building is primarily brick facing, with the classrooms being finished mostly in panelled stucco, which is recalled at various areas above or below windows in these two building types. The cottages are finished primarily in cedar siding, but with a matching brick base on the split level portions. Eaves and all exterior wood trim will be painted wood.

The grounds will be night lighted with lights controlled by a photo-electric cell. Lighting fixtures throughout have been selected for durability. In the living areas, they are designed to be residential in appearance and in the bedrooms of the diagnostic units they are especially tamper-proof. Fluorescent fixtures are employed in the administration building.

In the administration building, conduit is included only for a closed circuit television for use from the viewing areas in the treatment and classroom wings of the administration building to the conference room there. A sound system provides for recordings of announcements to be transmitted from the administration building control centre to various areas of that building and to all other buildings. The entire complex will be interconnected by house telephones. There will be a system of fire detection and alarm from all areas where children will be to the receptionist in the administration building for day use, and to both diagnostic units for night use.

Each building has a separate heating system, with all metering in the administration building. The cottages are to be heated by three zoned hot-air furnaces, with provision for heating outside air and for humidity and filtering. The diagnostic units and administration building are heated by a hot water system in each building, with an air circulation system added in the diagnostic units and with the system supplemented by a complete ventilation and air-conditioning system in the administration building. The classrooms have their ventilation provided by unit ventilators in each classroom.

Construction of this complex is expected to be complete in September, 1967.

Woodside Home, Edmonton

The Woodside Home for unwed mothers in Edmonton was augmented by the construction of the Administration Building. The first two ten-girl cottages of a complex of four such units, together with a double garage, were described in previous reports and were completed in 1965. The Administration Building was started in April, 1966, and was completed on October 17, 1966.

It is a single-storey frame structure on a full basement with a total floor area of 3,680 square feet. The basement provides accommodation for a receiving area, two food storage rooms, general supplies, a caretaker's workroom, washroom and furnace room, while the main floor has a general office, a waiting area for patients, a two-office clinic, dressing room with two cubicles, a multi-purpose room, library and staff and patient washrooms. A dumb waiter is provided to facilitate handling of supplies to and from the basement.

Exterior finish of the building is vertical cedar siding, while interior walls are plaster. Seamless flooring is used throughout; ceilings are of acoustic plaster; windows are wood framed. The building is heated by a conventional forced air system.

Work started in August, 1966, on the remaining two cottages for unwed mothers at the Woodside Home, and is expected to be completed in May, 1967. This now completes the project, the first phase of which started in September, 1964. The cottage unit contains seven single bedrooms, one double bedroom with common living, dining and recreation rooms, kitchen and laundry room. Other facilities include a suite for the housemother and her assistant, an office and storage for girls' clothing and linen. A feature of the building is the interior court which provides outdoor living for the residents. Construction is wood frame with a pitched roof surfaced with cedar shingles. Exterior wall cladding is vertical V-joint and diagonal bevelled cedar siding with accent panels of cement asbestos. Interior finish is drywall and accent panels of natural woods and masonite wood grain are used in different areas. Ceilings are generally drywall with some areas using acoustic tile; the floors in the living, dining and recreation rooms are hardwood, while all other floors are resilient tile. Windows are wood framed with sealed units in fixed and opening sashes. Heating is by a gas fired forced-air furnace. Exhaust ventilation is provided in all washrooms. Lighting is incandescent throughout.

Welfare Centre, Gunn

Tenders were received on October 13, 1966, for the construction of two six-man houses at the Welfare Centre in Gunn. The houses contain six single bedrooms, a sitting room, a furnace room and a bath and lavatory room.

Construction is wood framed throughout on reinforced concrete slab foundation, wood framed pitched roof construction surfaced with plywood sheathing and asphalt shingles. Exterior wall cladding is stucco, vertical V-joint siding and plywood panels. Interior finish is of gypsum lath and plaster throughout except for a glazed ceramic tile dado in the bath and lavatory room. The floor finish in all areas is vinyl asbestos tile. Heating is provided by a gas fired forced-air furnace through a perimeter duct in the floor slab. Exhaust ventilation is provided in the bath and lavatory rooms. Lighting is incandescent throughout.

Receiving Home for Children, Lethbridge

Construction of a Receiving Home for Children in Lethbridge, which was illustrated and described in detail in the 1965/66 Annual Report, was completed on January 12, 1967.

Home for the Aged, Sylvan Lake

A contract was awarded on July 22, 1966, for the construction of a Home for the Aged at Sylvan Lake. This home, which is similar to those constructed previously at various points in the Province, has a total floor area of 17,430 square feet and has accommodation for 50 guests, one matron and one housekeeper.

Construction is wood frame with exterior finishes of stucco and built-up roofing on sheet wood rafters. Interior finishes consist of plastered walls with sheet linoleum on floors and vinyl asbestos tile in the kitchen. A feature of the building is the enclosed landscaped courtyard.

The project is expected to be complete in June, 1967.

Department of Public Works

Department of Public Works Building, Calgary

Construction of a combined Department of Public Works and Department of Highways Building in Calgary to provide much needed new space for workshop and administrative functions for these departments was completed on February 6, 1967. This project was described in detail in the 1965/66 Annual Report.

Provincial Building, Castor

Tenders were received on October 20, 1966, for the construction of a Provincial Building in Castor, which is to include a liquor store, Treasury Branch and a courtroom with ancillary offices.

Basic construction of the building consists of a structural steel frame on concrete strip footings and foundation walls. Outside walls are insulated cavity brick and the roof has a timber deck with built-up roof. Interior finishes are facing brick and drywall on wood studs. The building is fully air-conditioned and has incandescent and fluorescent lighting.

Completion of construction is expected by July 30, 1967.

Provincial Building, Claresholm

Tenders were received on June 23 for the construction of the Provincial Building at Claresholm, and work is expected to be complete in mid-May, 1967.

The building is rectangular in shape, one storey high, with a gross area of 8,560 square feet including the partial basement. Government departments which will occupy the building are:

PROVINCIAL BUILDING, CASTOR

Motor Vehicles Branch, Department of Highways; Department of Welfare; Department of Agriculture and Department of Fish and Wildlife. A meeting room is available for the use of any department. There is also a courtroom with adjoining rooms for barristers, witnesses and travelling magistrates.

The building is concrete slab-on-grade with load-bearing exterior walls of concrete block interior wythe and brick exterior. The roof is wood deck on steel joists, the deck covered by built-up roofing. The courtroom section has a higher roof level than the office section with an accent fascia in exposed aggregate precast concrete. The front entrance floor and steps are slated. Interior partitions are mainly exposed concrete block (painted) with drywall in office areas. The main lobby has brick accent walls. With the exception of mosaic tiles in the washrooms and a seamless floor on the ramp to the service exit, floors are vinyl asbestos throughout. Window sashes and frames are of aluminum-protected wood with lower awning-type opening sash and fly screens. Interior doors are wood with pressed steel frames; entrance and lobby doors are of anodized aluminum. Ceilings are generally of suspended T-bar with acoustic lay-in panels with recessed fluorescent fixtures. Provision has been made for a wheelchair ramp entrance and appropriate toilet facilities for paraplegics. Gas fired forced-air furnaces supply heat through a perimeter system. A supply and exhaust air system is provided throughout with provision for future cooling.

Provincial Building, Falher

Tenders were received on January 12 and construction commenced on a Provincial Building in Falher. This building will house a Treasury Branch, a liquor store, a courtroom and various Provincial government offices.

The basic structure utilizes piles and reinforced concrete grade beams supporting structural concrete floor slabs with the exception

PROVINCIAL BUILDING, FALHER

of the liquor store, which has a concrete floor slab on compacted grade.

The roof system is generally steel joists and framing supported on brick bearing walls with a two-inch wood roof deck, rigid construction and built-up roof. The central clerestory and all roof flashings are copper.

With the exception of a small number of doors, there are no finishes on the exterior of the building requiring regular maintenance. All exterior walls are face brick; windows and main entrances are double glazing in anodized aluminum frames. The entrance area is finished with paving brick incorporating a non-skid surface.

On the interior of the building, the same face brick is used in many of the public areas, including the entrance foyer, the courtroom and the Treasury Branch. Other areas, including offices, are painted plaster board on wood studs.

Floor materials include terrazzo in the liquor store, paving brick in the building foyer and public corridors, ceramic tile in rest rooms and resilient tile in the courtroom, offices and Treasury Branch.

Ceilings throughout are integrally coloured sprayed texture or acoustic finish.

Interior doors are covered in plastic laminate so that the only items requiring regular repainting will be pressed metal door frames and the small amount of painted walls and wood fixtures.

Mechanically, the building is served by a bank of gas fired furnaces allowing individual thermostatic control of the various divisions of the building. The Treasury Branch is air-conditioned and other areas have ducting sized to accommodate future air-conditioning if it is required. Fluorescent lighting is generally used, except in the courtroom hallways and the exterior entranceways.

Completion of construction is expected on September 15, 1967.

Provincial Building, Grande Prairie

Tenders for the addition to the Provincial Building in Grande Prairie were received on December 15, 1966. This project was to be done in two phases, the first of which is to be completed early in the coming fiscal year. Accommodation is provided in the basement for the following areas: Emergency Measures Organization, communications room, operation centre, office, male and female washrooms, male and female sleeping areas, kitchen, garbage storage, Provincial and Emergency Measures Organization storage rooms.

Interior partitions consist of block walls which are painted throughout, while existing concrete ceilings and floors are finished in flat latex and rubber base paint.

Heating and ventilation are provided by a vertical supply unit which passes filtered fresh air through steam heated heating coils and through a ductwork system to be discharged through diffusers.

Air from storage rooms, kitchen, garbage storage and washrooms is exhausted via ductwork by means of a roof exhaust fan.

Lighting is fluorescent and incandescent throughout.

Administration Building, Medicine Hat

Construction commenced on September 16, 1966, on an Administration Building in Medicine Hat. The 40,296 square foot, two-storey building will house various Provincial government offices.

The building is framed and floored with cast-in-place concrete and is based on a 20′0″ by 20′0″ module with a subsidiary module of 5′0″ by 5′0″. The basement of the building is stone faced above grade and forms a podium for the main and second floors.

The main floor is recessed along the periphery of the building, forming a continuous arcade. This portion of the building is faced in architectural concrete panels. The second floor is faced in brick.

Generally, the building has a central entrance and stairway with corridors extending lengthwise to free stairs at each end. An elevator has been provided and the building is air-conditioned. Interior walls throughout are plastered. Partitions are faced with drywall and the floor finish is vinyl asbestos tile.

Completion of this project is expected in November, 1967.

ADMINISTRATION BUILDING, MEDICINE HAT

Provincial Building, Olds

Tenders were received on December 22, 1966, for the erection of a Provincial Building in Olds. The building will contain a liquor store, a courtroom and offices housing the Department of Highways, Agriculture, Welfare and Lands and Forests. The structure is two storeys in height, with provision for the addition of a further floor.

Construction is to be of precast and prestressed concrete above the main floor, while the main floor is to be of reinforced cast-in-place concrete joists and slab with removable pans. Main walls, columns, spandrels and integral canopies are to be precast concrete with acid-etched or sand-blasted finish. The second floor and roof will be prestressed Lin Tee slabs.

The exterior finish is to be exposed concrete with brick and Ytong end walls. Windows will be aluminum with sealed double glazing.

Floors in the main entrance and stairwell are to be quarry tile, while vinyl asbestos tile will be employed elsewhere. Drywall on metal studs will be used for interior walls and partitions; ceilings will be of suspended acoustic tile.

Heating will be obtained from a hot water boiler and distributed by a fan-coil unit system which will permit circulation of chilled water for future cooling. Ventilation will be by a centrally controlled duct system with pre-heating and provision for future cooling.

Lighting will be generally fluorescent throughout.

Completion is expected by the end of September, 1967.

PROVINCIAL BUILDING, OLDS

Carpenter Shop, Red Deer

Construction of a new Carpenter Shop for the Department's Maintenance Branch at Red Deer, which was described in the 1965/66 Annual Report, was completed on July 27, 1966.

Treasury Branches

Brooks

Tenders were received on September 8, 1966, for a new Treasury Branch in the Town of Brooks. This is a typical Treasury Branch building, having a total floor area of 2,970 square feet. Accommodation is provided on the main floor for a banking hall, a manager's office, a staff room, washrooms, a security vault and a mechanical room.

The main floor, the vault, grade beams and foundation walls are constructed of reinforced concrete, while the front facade is of selected face brick piers with black anodized extruded aluminum windows in between and Tyndall stone panels at top and bottom. Exterior walls are of concrete masonry and interior walls are of selected face brick on the front facade with concrete masonry and wood framing elsewhere. The roof structure is composed of exposed cedar deck on glulam beams on the interior, with rigid insulation and built-up gravel roof to the exterior. Interior finishes include exposed face brick, concrete block, walnut panelling feature walls in the manager's office and banking hall, and painted plaster. Flooring consists of resilient tile. Heating and cooling of the building is by a gas fired furnace fitted with a cooling coil; lighting is fluorescent throughout.

Construction is expected to be complete by mid-April, 1967.

Vulcan

Tenders for the construction of the Treasury Branch in Vulcan were received on March 23, 1966, and completion is expected in mid-November, 1967. This branch is identical to the one at Brooks described above.

University of Calgary, Calgary

Calgary Hall

Tenders were received on February 23, 1967, for the construction of an addition to Calgary Hall at the University of Calgary. When construction is completed in the fall of 1967, an additional three floors plus a mechanical penthouse will have been added to the existing three-storey Calgary Hall, Block "D".

As the original design of Calgary Hall anticipated a two-storey future addition, the additional storey was made possible by using a light steel structure in the design of the top floor. The fourth and fifth floors have reinforced concrete floors and bearing walls, while the sixth floor is constructed of steel exterior columns and light steel roof joists and metal decking. The roof is to be gravelled over built-up roofing and insulation. Exterior walls are precast architectural panels and exposed textured concrete accented with fieldstone veneer.

Floors will be of resilient rubber tile, except in the stairwell where terrazzo will be employed. Ceilings are of fibreboard lay-in panels in a T and T suspension system. Interior partitioning is of vinyl clad drywall on metal studs.

Central Heating and Cooling Plant

Construction continued during the past year on the Central Heating and Cooling Plant for the University. This project, which was described in detail and illustrated in the 1965/66 Annual Report, is expected to be complete in June, 1967.

Bow River Cooling Water System

Tenders were received on August 25, 1966, for the construction of the Bow River Cooling Water System which will provide cooling water for the refrigeration machines in the Central Heating and Cooling Plant of the University. In addition to its primary function of serving the University, it will provide the same services to the Foothills Provincial General Hospital and the Department of Highways and Department of Public Works properties west of 37 Street N.W.

Two electrically driven pumps, with a capacity of approximately 5,000 Imperial Gallons per Minute, are to be installed. This will be adequate to take care of University requirements until approximately 1975. Future pumping capacity can be increased to approximately 9,000 Imperial Gallons per Minute, calculated to be sufficient for the maximum predicted growth of the University and the Foothills Hospital property.

Since the need for irrigation of lawns and shrubbery is a function of temperature similar to that for air-conditioning, the water used for cooling the chillers will be approximately equal to the irrigation load; thus, the dual use of the water is the key to the economy of the system.

The project is expected to be complete in September, 1967.

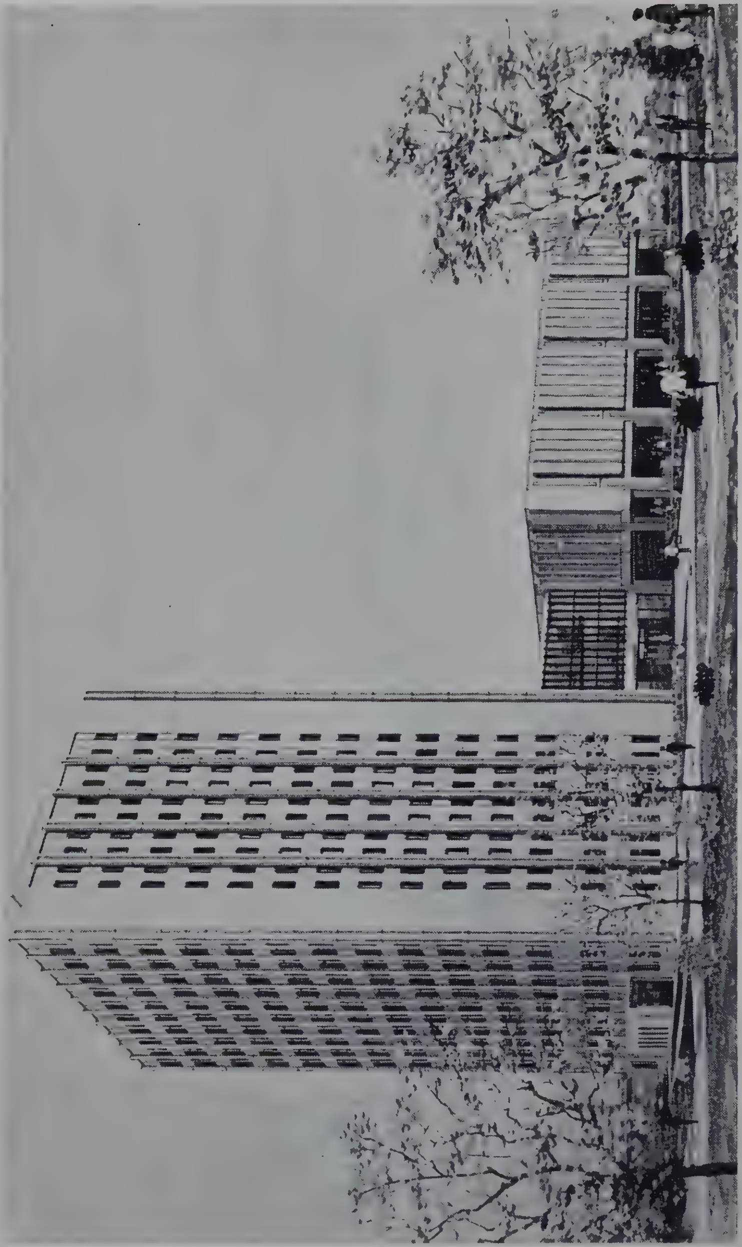
Education Building

Tenders were received on November 3, 1966, for another major addition to the University of Calgary, the new Education Building.

The new Education Building complex will be situated south of the Arts and Education Building at the southern approach to the campus. The complex is to consist of two major blocks – a classroom wing and an office tower. The three-storey structure accommodates classrooms of various sizes, one three hundred seat lecture hall, laboratories, examination and observation facilities for education psychology, audio-visual classroom, study lounge and study areas. Provision is made in the basement for the development of a television studio complete with ancillary areas. The building is to be equipped for the most advanced educational television distribution throughout all classrooms. An extensive use of rear view projection in teaching is foreseen and this called for special grouping of classrooms around central projection rooms. A fourteen-storey tower block will house staff offices, seminar rooms, teaching and periodical libraries, an electronic computer, faculty and administration offices, graduate offices and staff lounges. The classroom wing and the tower are connected by a fully enclosed glazed link on all levels of the classroom block.

The construction of the buildings is of reinforced concrete bearing walls and floors. Architectural precast concrete is to clad the exterior of the complex. Windows have sealed double fixed glazing in aluminum frames. The interior partitioning is brick and concrete block in the school block and mostly wood frame in the tower building to allow for changes in layouts according to further requirements. Floors are covered with resilient tile, ceramic tile and carpet in selected areas. Ceilings are mostly the removable modular type acoustic ceilings. Three high speed elevators serve the tower and one service elevator has been provided in the three-storey classroom block. The entire building is fully air-conditioned. The offices in the tower block are equipped with induction-type system for the exterior zone and double duct in the interior zone. Double duct systems are again used in the classroom block, supplemented by wall fin radiation along the exterior walls.

The mechanical services will be supplied from the main distribution tunnel through a vault into the mechanical equipment rooms at basement level, some of which are situated outside the buildings below grade to reduce noise and vibration transmission into occupied areas. The electrical installations include fluorescent lighting throughout the building with special attention paid to areas where varied types and levels of illumination are required by the



EDUCATION BUILDING, UNIVERSITY OF CALGARY functions. All office areas are serviced with underfloor ducts for flexibility in the installation of power, light, telephone and other communication systems. Elaborate and extensive provisions have been made for the addition by the University of specialized electronic equipment used in teaching and teaching demonstrations. Provisions include for local and campus wide educational television distribution which can be linked with or extended onto the city and district school systems' educational television programs.

The total gross floor area of the building is 251,500 square feet. The construction is scheduled to be completed on the school block by August, 1967, and by May, 1968, for the tower.

Engineering Centre, Stage II

Construction of the second phase of the Engineering Centre at the University of Calgary, which was described in detail in the 1965/66 Annual Report, was completed on November 4, 1966.

Engineering Centre, Stage III

Construction commenced on the third stage of the Engineering Centre at the University of Calgary on August 11, 1966, and is expected to be completed by August 30, 1967.

This portion of the building has the same basic construction and choice of materials as the first two stages of the Engineering Centre. The structure is reinforced concrete with one portion of the roof in precast double T units. To give the necessary continuity of appearance, exterior facing materials will be precast concrete panels with the same exposed aggregate as the earlier stages. Other finishes

ADDITION TO CALGARY HALL, UNIVERSITY OF CALGARY include stucco and exposed structural concrete. Interior partitions will be of concrete block and brick.

This stage of the project will include teaching and research facilities for the Department of Mechanical Engineering in the Mechanical Wing which will have a total gross area of 49,020 square feet. Shared research facilities for all four departments of the Faculty of Engineering will be located in the Energy Transfer Laboratory with a total gross area of 26,208 square feet. The building is designed on five levels, including a basement and sub-basement and three upper floors. Provision is made for future expansion of both portions of the third phase with the Mechanical Wing being designed to carry two additional floors and to have a 100 per cent extension towards the east. The Energy Transfer Laboratory is designed to extend towards the west to provide approximately half as much space again.

Separate tenders have been called for the supply and installation of a gas turbine and related equipment and for all the built-in furnishings required to complete the facilities.

Kananaskis Science Station

Construction of the first buildings for the Science Station, the laboratory and the residential lodge, was completed on January 20, 1967. This project was described in detail in the 1965/66 Annual Report. Future plans call for duplex and quadruplex dormitories for staff and married students.

Underground Utilities Distribution System

The first phase of a three stage development of Utilities Distribution on the Calgary campus was commenced in June, 1966, and

ENGINEERING CENTRE, STAGE III, UNIVERSITY OF CALGARY was completed in November. This first phase of service tunnel construction consists of 7,500 feet of tunnel with inside dimensions of 8′0″ in width and 9′9″ in height.

The tunnel is completely below grade and carries complete mechanical and electrical services of all types to each building. A building service tunnel eight feet wide by eight feet high carries the services from the main tunnel to an outside vault at each building. There is no entry to the buildings from the tunnel except for the service lines. The tunnel is only for use of maintenance personnel and not for students or professional staff.

The vaults, building service tunnels and their connection at the main tunnel are constructed of cast-in-place concrete as are the sections where the tunnel makes a change of direction. The straight runs of tunnel in between the above elements are constructed of cast-in-place concrete rectangular in section.

The philosophy behind the design of this tunnel system has been to produce a design for a generalized service tunnel suitable for requirements not only now, but far into the future. The tunnel will carry the following mechanical and electrical services, with space allocated for each utility whether it is needed now or in the future:

Mechanical Services – High temperature hot water
Chilled water for air-conditioning
Domestic cold water
Irrigation water for lawns
Treated makeup water for steam boilers
Gas lines

Electrical Services – High voltage power cables
Central monitor and supervisory system
Maintenance telephones

Central Fire Alarm Monitoring

Alberta Government Telephones Cables

Closed Circuit Television

The mechanical service lines are on one wall, with electrical lines on the opposite side. As the system of tunnels grows, it will form a complete loop or series of loops so that all services may form complete rings to provide reliability against faults and failures.

The tunnel is continuously supplied with air and is vented every 300 to 500 feet. There are drains to sewer at regular intervals to carry off any leaks that may occur in lines from time to time. For the safety of maintenance personnel that frequent the tunnels, there are escape hatches every 300 to 400 feet.

The tunnel has fluorescent strip lights every 20 feet, as well as individual battery operated emergency standby lights.

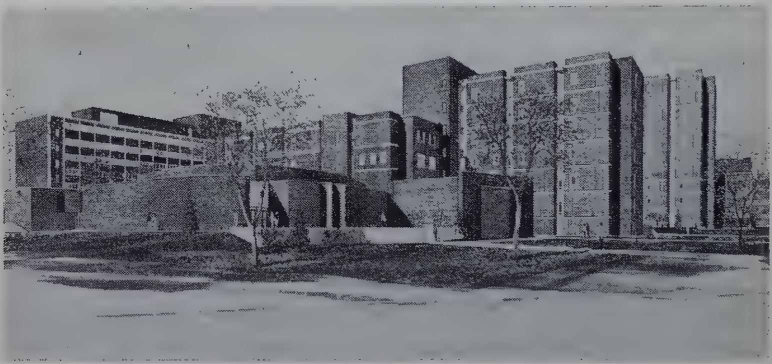
The vaults at each building are used to convert the high temperature hot water to a lower pressure and temperature suitable for use in the building as well as to house various sundry items of equipment.

In review, the tunnels provide, in a more efficient manner, the same services that must be provided to the buildings in any case. By keeping the tunnel program ahead of the building program, services can be made more readily available. They eliminate once and for all the ever increasing need for tearing up the landscaping at different times to provide more services. They eliminate practically all of the maintenance previously required every ten to fifteen years on lines directly buried in the earth. The pipelines in the tunnels last much longer and the maintenance personnel can readily carry out inspections and make any alterations or additions required, which could only be done before by digging up the necessary lines.

University of Alberta, Edmonton

Biological Sciences Building, Phase I

On March 9, 1967, tenders were received for the construction of a Biological Sciences Building at the University of Alberta. Tenders received were for the first phase, which involves the construction of a Genetics Wing, a Zoology Wing and a Zoology Tower. The building is the first part of the Biological Sciences Building which, in the final layout, will house five departments of



BIOLOGICAL SCIENCES COMPLEX, UNIVERSITY OF ALBERTA, EDMONTON the Faculty of Science, with future extension for each department provided for.

The basic structure of the building is poured-in-place reinforced concrete. All bearing walls, floors and columns are formed in this material. The exterior finishes of the building consist of facing brick and Tyndall limestone with wood windows. The windows are fixed and are triple glazed. Interior partitions are concrete and glazed tile. Floor finishes include rubber tile, cushioned vinyl, ceramic mosaic tile and exposed concrete, while ceilings consist of either exposed concrete, suspended acoustic panels or suspended plaster.

Completion of the Zoology tower and Genetics wing is scheduled for August, 1968, while the Zoology wing is scheduled for completion in October of 1968. Tenders are to be called on Phase II in August, 1967, and on Phase IIa in September, 1967.

Central Cooling Plant

Construction of the Central Cooling Plant, which was described in detail in the 1965/66 Annual Report, continued during the past fiscal year and completion is expected in May, 1967. The plant, situated underground on the south bank of the North Saskatchewan River, will supply 40°F. chilled water to the air-conditioning equipment of the University buildings through a system of underground piping.

Education Building Library

Tenders for the Education Building Library Addition were received on March 9, 1967, and construction is expected to be completed in November. This second floor addition, which will add 14,370 square feet to the present building, is constructed of steel columns and beams which are supported by existing reinforced concrete columns. Roof construction is flat, of hollow precast concrete slabs, and finished with a built-up gravel surface. The exterior walls are of plastered concrete block, and serve as a back-up for the exposed aggregate precast panels. Interior partitions consist of plastered block walls and clear fir glazed screen walls in stained walnut finish. Flooring is generally of rubber tile, with mosaic tile in washrooms and terrazzo in stairways. Ceilings are plaster and acoustic tile in a suspended "T" bar system.

Heating is provided by a hot water fin vector radiation system connected to the existing mechanical equipment. Ventilation and cooling are provided by a low velocity air system through ductwork and diffusers connected to the existing mechanical equipment, while complete exhaust for washrooms is through roof exhaust fans. Lighting is fluorescent throughout the addition.

Environmental Control Laboratory

Construction of an environmental control laboratory located at the University Farm, which was described in detail in the 1965/66 Annual Report, was completed on December 6, 1966. The laboratory is used for low temperature research to improve shelter design, allow a more effective selection of breeding stock and generally improve feeding and management in relation to efficient production of livestock in a cold climate.

Engineering Centre, Phase I

Tenders for Phase I of the Engineering Centre at the University of Alberta were received on May 12, 1966. This building is the first unit of the new Engineering Centre Complex which will eventually consist of four high rise buildings connected by a low, general-use portion, having facilities common to all departments in the Engineering Faculty – a "campus within a campus". The general plan of the entire centre was first determined, including the total ground area which it would occupy, and then detailed plans were prepared for the first unit. This first building will contain the Departments of Chemical-Petroleum Engineering, Mining-Metallurgy and the University's Technical Services Department. The building is situated in the northwest corner of the campus immediately south of the old faculty residences and will be serviced by the new services tunnel to be constructed for this part of the campus.

The structure of the building is predominantly reinforced concrete –a composite structural wall is used on the main north and south walls, combining columns and walls into one continuous unit which is both economical and allows considerable flexibility for the vertical service shafts which occur at regular intervals within these exterior walls. The floor construction is standard concrete joist system with two-inch concrete topping. Exterior finishes on the building are mainly brick on the long sides, Tyndall limestone on the end walls and all around the three-storey portion. These materials are in harmony with earlier buildings built on the campus and the new buildings which will be located in the north end of the campus. All windows are to be metal, horizontally pivoted units, with between glass venetian blinds, windows operable only by University maintenance personnel. The building is to be fully air-conditioned and will include an extensive air change (purge) system which has to be provided in a building such as this where volatile and noxious materials are being used by the students. There will be eight air changes per hour in the building, except in laboratories, where the air changes number between twelve and fifteen per hour and can be increased to thirty changes per hour if necessary, using purge and/or fume hood air.

Interior wall finishes are plaster on steel stud, concrete or concrete block walls; some walls are of exposed concrete block. Ceilings are suspended acoustic tile and some suspended plaster; the remainder is exposed painted concrete. Rubber tile flooring is used in most rooms, with fieldstone at the main entrance lobbies, terrazzo in stairways and some painted concrete in other areas.

The total gross area of the building is 218,700 square feet and facilities are provided for approximately 900 students in Engineering and the Technical Services Department.

Construction of this phase of the Engineering Centre is expected to be complete in October, 1967.

Henry Marshall Tory Building

Construction of the Social Sciences Building, known as the Henry Marshall Tory Building, on the University of Alberta campus in Edmonton was completed on September 12, 1966. The project was illustrated and described in considerable detail in the 1965/66 Annual Report.

North Loop Services Tunnel

Tenders for the construction of a North Loop Services Tunnel at the University of Alberta were received on December 15, 1966. The presently designed tunnel constitutes only about two-thirds of a complete North Loop. The balance of the North Loop, plus a run to connect the North Loop to the Department of Public Works South Steam and Power Plant, will probably be constructed in 1968.

The tunnel is 6,500 feet long and has clear inside dimensions of 9′0″ high by 9′6″ wide. It is constructed in a conventional ditch and incorporates the following services:

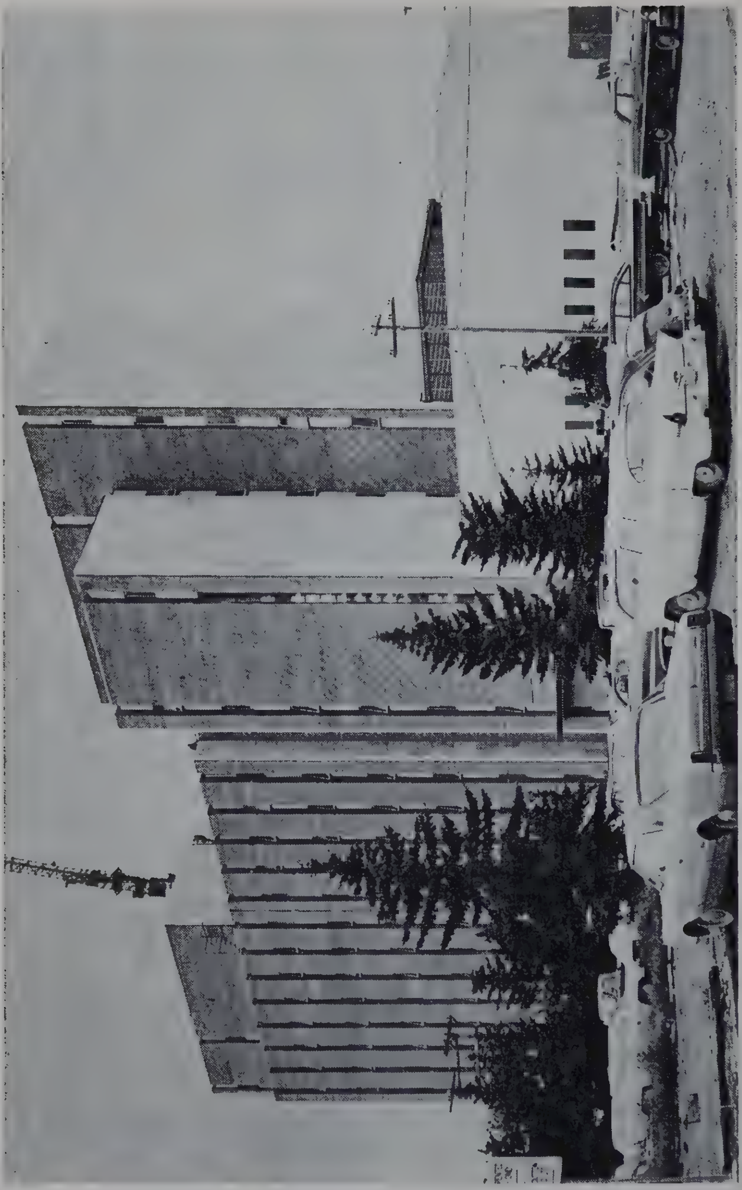
Mechanical

1. Eighteen inch high pressure steam line
2. Ten inch condensate return line
3. Twenty-four inch domestic cold water line
4. Twenty-four inch chilled water supply and return lines
5. Six inch natural gas line
6. Six inch compressed air line

Electrical

1. High voltage cable

Provision has been made for the future installation of the following services:



ENGINEERING CENTRE, PHASE I, UNIVERSITY OF ALBERTA, EDMONTON

Mechanical

1. Several small diameter lines as required

Electrical

1. Telephone and communications
2. Additional electrical cables
3. Monitor and alarm systems

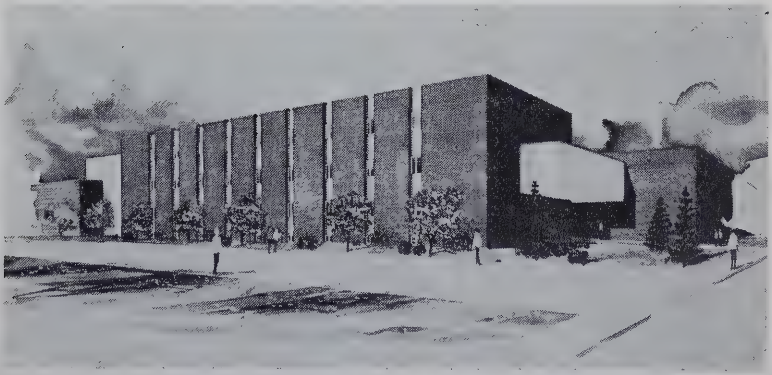
The tunnel is designed to have approximately four to eight feet of earth cover and the design includes tunnel ventilation, lighting, emergency lighting, drainage, telephone communication, fire, smoke and natural gas detection, and emergency exits.

The buildings to be connected to the North Loop tunnel are:

1. Henry Marshall Tory
2. Agriculture
3. Math Physics Complex
4. Biological Sciences
5. Temporary Laboratory
6. Engineering Complex
7. Printing Services
8. New Students' Union

Stubs are provided in the tunnel for future connection of services to the following buildings:

1. Faculty Club
2. Future Science Complex
3. Future Engineering Complex wings
4. Armed Forces



PRINT SHOP, UNIVERSITY OF ALBERTA, EDMONTON

5. Physical Education
6. Old Students' Union
7. Administration

The tunnel is designed to accommodate service personnel, but not pedestrian traffic.

Construction of this project is expected to be complete by November, 1968.

Printing Services Building

Tenders were received on April 7, 1966, for the Printing Services Building at the University of Alberta, and construction is expected to be complete in May, 1967.

Having a total floor area of 54,250 square feet, the building is four storeys in height and is of concrete and masonry construction. The structure is a reinforced concrete frame with concrete joist system floors. Exterior walls are of red face brick and concrete with exposed aggregate, while interior finishes include brick and plaster walls and vinyl asbestos tile and terrazzo floors. Window and door frames are of wood.

The mechanical system of the building includes perimeter radiation and forced ventilation, utilizing the campus central steam supply.

Print Shop facilities are housed on the lower floor while the main floor accommodates duplicating and technical services, the Campus Patrol, Fire Marshal, Parking Controller and Superintendent of Buildings. The two remaining upper floors are being used as temporary teaching laboratories; they can accommodate nearly 3,000 students taking first year chemistry and biological sciences. A separate contract was awarded for the supply and installation of cabinets and benchwork for these floors, which included the extension of all the necessary utilities to undergraduate laboratory standards.

Additional University services now scattered throughout the Campus will eventually expand into these floors.

Vivarium

Construction of the new Vivarium on the University Farm at Ellerslie, which was described in the 1965/66 Annual Report, was completed on July 18, 1966.

Alberta Liquor Control Board

During the past year, liquor stores have been constructed or are at present under construction for the Alberta Liquor Control Board at the following locations throughout the Province:

Vegreville
Vauxhall
Milk River

Alberta Liquor Control Board Warehouse, Calgary

Construction of the new warehouse in Calgary for the Liquor Control Board, which was illustrated and described in detail in the 1965/66 issue of the Annual Report, was completed on December 22, 1966.

Paving and Related Work – Government Institutions

This area of the work deals with site finishing and landscaping at various institutions. In order to maintain a good system of roadways and parking areas, the latest construction standards for this type of work are used, taking into account such factors as load bearing and drainage requirements. Installation of street lights, car plug-ins, retaining walls, patios and walks is also carried out during this phase of the work. A continuous process of up-grading is constantly being carried out at the older institutions of the Province where dirt road systems and works of a like era are being improved.

The following is a breakdown of projects in this branch for the fiscal year:

Northern Alberta Institute of Technology – Edmonton
Oil and Gas Conservation Board – Edmonton
University of Alberta Farm – Ellerslie
Welfare Centre – Gunn
Provincial Gaol – Calgary
Department of Lands and Forests Yard – Whitecourt
Police Training School – Edmonton
Alberta School Hospital – Red Deer
Provincial Building Parking Lot – Grande Prairie
Southern Alberta Institute of Technology – Calgary
University of Alberta – Edmonton
Department of Lands and Forests Yard – Peace River
Fire Officers Training School – Vermilion
Department of Public Works and Department of Highways Building – Calgary
Department of Public Works Shops – Edmonton
Bow River Forestry Headquarters – Calgary
Alcoholism In-Patient Treatment Centre – Edmonton

REPORT ON THE EMPLOYMENT OF PRIVATE ARCHITECTS

It can be seen from the list of consulting architects and engineers commissioned by the Department of Public Works during the fiscal year 1966/67 (included elsewhere in this report), that the activities of this relatively recently established Liaison Branch of the Department have increased considerably during its short period in operation.

The principle of engaging private architectural consultants for Government projects was adopted only during the last fiscal year, and is now in its second year of operation. The commissioning of private consulting firms has made possible, firstly, a large increase in the volume of construction carried out by the Department; secondly, an alleviation of the ever increasing burden placed on our own architectural and engineering branches; and, thirdly, has afforded an opportunity for private enterprise to participate in the Government building program and to provide the benefits of professional experience gained in different fields of architectural design. It is believed that the private consultants have carried this new responsibility with considerable success, as evidenced by their individual contributions.

The work was spread over a large number of firms so that, to date, the majority of firms in the Province have been granted a Government commission.

A summary of the operation, procedures and services that the Department provides through liaison with private consultants follows.

Basic Routine

In order that the Department of Public Works can properly discharge its responsibilities in connection with building projects assigned to private architectural consultants, a routine has been established as follows:

1. All building projects are initiated by the Director of Design and Construction who instructs the Liaison Architect to make a recommendation and requests that the Selection Committee for Private Consultants convene to examine the proposal(s). The consulting architect will then be selected by this committee consisting of the Deputy Minister, Assistant Deputy Minister, Director of Design and Construction, Chief Architect, Assistant Chief Architect and the Liaison Architect.
2. Upon approval of the selection by the Minister, the architect is invited to take on the assignment.

3. Upon acceptance of the invitation, the architect is asked to meet with the Liaison Architect to set up the terms of engagement.
4. At this time, the architect is presented with the building program, the basic terms of engagement and full instructions for the detailed procedure on the project. If no formal building program exists, the Liaison Architect arranges for a meeting between the architect and the client department(s) so that the architect can ascertain the scope of the assignment.
5. A draft Client/Architect agreement on the standard R.A.I.C. form is prepared by the Liaison Architect and submitted to the architect for his concurrence with the terms of engagement.
6. Upon acceptance of the draft agreement, the architect prepares nine signed copies of the agreement fully signed by the principal(s) of the firm and submits them to the Department of Public Works.
7. An application is then made for an Order in Council to engage the architect and, when the Order in Council is passed, the Minister approves the agreement, one copy of which is returned to the architect.
8. The architect will then proceed with preliminary design studies if sufficient information is on hand for him to do so; otherwise, the Liaison Architect will arrange for further meetings with the client department(s).
9. At an accepted target date, the architect will arrange to present to the Department his finalized sketch plans, perspective study and design report of the project, together with his estimate of cost and timetable for preparation of working drawings and period of construction.
10. A meeting is then convened between the architect and his engineering consultants, Liaison Architect, Deputy Minister, Assistant Deputy Minister, Director of Design and Construction, Chief Architect and Assistant Chief Architect to assess the sketch submission in terms of budget and phasing of the work.
11. The approved sketch submission and a full report is then presented to the Deputy Minister, the Minister of Public Works and the Minister(s) of the client department(s) or equivalent authority for their approval.

12. Upon acceptance of the sketch submission, the architect will then receive formal notification to proceed with working drawings and specifications.
13. During all stages, all communication between the architect and the client department(s) is through the office of the Liaison Architect.
14. A series of job progress meetings are then arranged between the architect and his engineering consultants, the Liaison Architect and Department of Public Works engineering personnel to assess the progress of the contract documents and to familiarize the consultants with Government policy, procedures and make recommendations as to general design systems.
15. Upon completion of working drawings and specifications, the architect submits the contract documents to the Liaison Architect together with a pre-tender call report including revised estimates of costs.
16. The contract documents are then examined by the Department of Public Works Engineering Branch, Specification Branch and Construction Branch and returned to the architect for final corrections.
17. Upon completion of the required corrections and/or alterations, the architect re-submits the contract documents to the Liaison Architect.
18. The accepted contract documents, a pre-tender call report and construction department report are then presented to the Deputy Minister, the Minister of Public Works, Chief Architect, Chief Engineer and the Minister(s) or equivalent authority for their approval and signature.
19. Upon acceptance of the contract documents and estimate of costs, the drawings and specifications are submitted to the Contracts Section for processing and tendering.

In order to facilitate the implementation of the foregoing, the Department of Public Works provides the consulting architect with a copy of the legal survey of the site, a topographical survey, including survey of existing services and information as to subsoil conditions. Alternatively, the architect can arrange to have the above carried out by special consulting firms, including the engagement of a concrete and/or steel and welding inspection firm at the approval and expense of the Department of Public Works.

The Department also provides the architect with the services of a hardware consultant. A Landscape Architect of the Landscape

Architectural Section is provided to act as a consultant to the architect on site and landscape development.

In addition to the above special services, the Department provides the consulting architect with administration services pertaining to liaison within its own department and the client department(s); preparation and/or administering project programmes; specification procedures and format; printing, binding and issuing of all plans and specifications; calls for tenders; receiving and recording of all enquiries from tenderers and all requests for approvals; receiving of tenders and examination of bids received, project supervision in coordination and cooperation with the architect; and examination, expedition and administration of all construction documents.

The Department of Public Works controls the activities of the private consulting architect through the Liaison Architect who is in regular communication with the consultant during all stages of design, working drawings and specifications up to award of tenders and, through the Superintendent of Construction, during the contract period.

The private consulting architects are paid a fee on a percentage basis for the professional services that they provide the Department. The fee payable is an agreed percentage of the amount expended upon the building or the agreed percentage of the architect's estimated cost, whichever is less, in accordance with the Alberta Architects' Act and the Alberta Association of Architects' Fee Schedule adopted January 28, 1966. However, the basic fee for all Provincial Department of Public Works projects for all categories of work is reduced an allowed percentage when a programme for the project and administrative services are provided.

CONSULTING ARCHITECTS AND ENGINEERS COMMISSIONED BY THE DEPARTMENT OF PUBLIC WORKS DURING THE FISCAL YEAR 1966/67

Consultant	Type of Service	Project
J. Smith, A.H.C. – Edmonton	Finishing Hardware Schedules	Provincial Museum and Archives Building – Edmonton
Bernard & Hoggan Engineering and Testing Ltd. – Edmonton	Concrete Tests	Engineering Centre, Phase I, University of Alberta – Edmonton
David Panar –Edmonton	Engineering Consulting Services	Maintenance and Operation of Power Plants for the Utilities Branch, Department of Public Works – Edmonton
D. E. Baker, A.H.C. – St. Albert	Finishing Hardware Schedules	Biological Sciences Building, University of Alberta – Edmonton
Eugene Olekshy, Howard Bouey, Robert Bouey – Edmonton	Architectural Work	Provision of Furnishings and Kitchen Equipment, Cancer Clinic Hospital – Edmonton
Goodfriend-Ostergaard Associates – Cedar Knolls, New Jersey	Electronic Engineering	Sound Systems for the Northern Jubilee Auditorium – Edmonton, and the Southern Jubilee Auditorium – Calgary
Claremond Project Consultants Limited – Edmonton (later rescinded to Ronald Clarke – Edmonton)	Preparation of Master Plans and Programmes	Health Sciences Centre – Edmonton
Alton McCaul Bowers – Calgary	Architectural Work	Provincial Building – Olds
Leonard C. Klingbell – Edmonton	Long Range Planning	Agricultural and Vocational College – Vermilion
R. McCutcheon Surveys Ltd. – Calgary	Contour Survey	University of Calgary – Calgary
The Warnock Hersey Co. Ltd. – Edmonton	Concrete Tests	Central Cooling Plant, University of Alberta – Edmonton

Associated Engineering Services Ltd. – Edmonton	Parking and Traffic Study	Health Sciences Centre – Edmonton
Curtis Test Laboratories Ltd. – Calgary	Investigative Engineering	Slope Instability and Drainage Problems on the Hill adjacent to Calgary Jubilee Auditorium and Grace Hospital – Calgary
H. K. Davis & Associates Limited – Weston, Ontario	Development of Overall Plans	Television Facilities and Systems, University of Alberta – Edmonton
Vinto Engineering Ltd. – Edmonton	Electrical and Civil Engineering	Alternate North Loop Tunnel, University of Alberta – Edmonton
Chabot Engineering Ltd. – Edmonton	Mechanical and Electrical Engineering	Addition of Incinerator, Alberta Hospital – Edmonton
Chabot Engineering Ltd. – Edmonton	Mechanical Engineering	Renovation of Wards 7 and 8, Alberta Hospital – Edmonton
Diven Meredith – Indio, California	Refrigeration Work	Storage Room, Horticultural Station – Brooks
Chabot Engineering Ltd. – Edmonton	Mechanical and Electrical Engineering	Addition of Refrigeration, Provincial Building – Barrhead
H. W. Klassen & Associates Ltd. – Calgary	All Engineering Work	Tunnel, Southern Alberta Institute of Technology – Calgary
Stanley Associates Engineering Ltd. – Edmonton	All Engineering Work	Sewer Tunnel, University of Alberta – Edmonton
Winkelaar, Howard & Associates – Edmonton	All Engineering Work	(a) Steam Line, Alberta Hospital – Ponoka (b) Demineralizers, Alberta Hospital – Ponoka
Winkelaar, Howard & Associates – Edmonton	Electrical and Mechanical Engineering	(a) Addition to Laundry, Deerhome Institute – Red Deer (b) Addition of Reheat Coils to Wards 7 and 8, Deerhome Institute – Red Deer

Consultant	Type of Service	Project
W. R. Cheriton & Associates – Edmonton	Electrical Engineering	(a) Power Systems Study, University of Alberta – Edmonton (b) Addition to South Public Works Heating Plant, University of Alberta area – Edmonton
D. Panar & Associates – Edmonton	Mechanical Engineering	(a) Energy System Extension, South Public Works Heating Plant – Edmonton (b) Homes for the Aged – various locations
H. W. Klassen & Associates Ltd. – Calgary	Mechanical Engineering	(a) Addition of Ventilation, Provincial Gaol – Calgary (b) Addition of Ventilation, Various Buildings – Claresholm (c) Addition of Ventilation, Oil and Gas Conservation Board – Calgary
J. D. Henderson Engineering Ltd. – Edmonton	Mechanical and Electrical Engineering	Addition to Alberta Institute for Girls – Edmonton
J. D. Henderson Engineering Ltd. – Edmonton	Mechanical and Electrical Engineering	(a) Propane Standby, Bowden Institute – Bowden (b) Addition of Ventilation, Provincial Building – Grande Prairie
A. A. Allart & Associates – Calgary	Mechanical and Electrical Engineering	Addition to the Kitchen Ventilation, Deerhome Institute – Red Deer
J. D. Henderson Engineering Ltd. – Edmonton	Mechanical Engineering	Addition of Gas Heater and Ventilation of Wards, Rosehaven – Camrose
Yost, Keen, Hleck & Associates Ltd. – Edmonton	Mechanical Engineering	Replacement of Coils, Physics-Chemistry Building, University of Alberta – Edmonton
Curtis Test Laboratories Ltd. – Calgary	Soil and Foundation Investigation	Physical Education Annex, University of Calgary – Calgary
Hemingway and Laubental – Edmonton	Architectural Work	Provision of furnishings and drapes, Veterans' Nursing Home – Edmonton

Douglas J. Cardinal – Edmonton	Architectural Work	Master Plan for the Future Development of the Vocational School – Fort McMurray
R. McCutcheon Surveys Ltd. – Calgary	Contour Survey	University of Calgary – Calgary
Reid, Crowther & Partners Ltd. – Edmonton	Mechanical and Electrical Engineering	Addition to Calgary Hall, University of Calgary – Calgary
Luke O. Lindoe – Medicine Hat	Sculptural Reliefs	Provincial Museum and Archives Building – Edmonton
Reid, Crowther & Partners Ltd. – Edmonton	Mechanical and Electrical Engineering	(a) Biological Sciences Building, Phase III, University of Calgary – Calgary (b) Basement Laboratory Addition, Northern Alberta Institute of Technology – Edmonton
H. W. Klassen & Associates Ltd. – Calgary	Mechanical and Electrical Engineering	Social Sciences Complex, University of Calgary – Calgary
Angus Butler Engineering Ltd. – Edmonton	Mechanical and Electrical Engineering	Cameron Library Extension, University of Alberta – Edmonton
Chabot Engineering – Edmonton	Mechanical Engineering	Department of Highways Repair Shops – Edson and Lac La Biche
Vinto Engineering Limited – Edmonton	Mechanical Engineering	Chemical Petroleum Building, University of Alberta – Edmonton
Winkelaar, Howard & Associates – Edmonton	All Engineering Work	Transformer Installation, Medical Building, University of Alberta – Edmonton
D. Read, A.H.C. – Calgary	Finishing Hardware Schedules	Education Building, University of Calgary – Calgary
M. T. Moriarity & Associates Ltd. – Calgary	Structural Engineering	Social Sciences Building, University of Calgary – Calgary
A. M. Holland – Edmonton	Architectural Work	Provincial Building – Athabasca
A. G. Burrows & Associates – Edmonton	Architectural Work	Provincial Laboratory of Public Health, Health Sciences Centre – Edmonton

Consultant	**Type of Service**	**Project**
Wallbridge and Imrie – Edmonton	Architectural Work	Furnishings and Drapes, Diagnostic and Receiving Centre – Edmonton
Shedden & Field – Calgary	Architectural Work	Occupational Therapy and Recreation Building – Claresholm
J. A. Cawston & Associates – Calgary	Architectural Work	80 Cell Remand Block, Provincial Gaol – Calgary
Ross M. Stanley – Edmonton	Architectural Work	Animal Science Laboratory – Fairview
D. S. Stevens & Partners – Calgary	Architectural Work	Staff Residence. Alberta Hospital – Claresholm
H. K. Davis & Associates Limited – Weston, Ontario	Television Engineering	Television Facilities and Systems, University of Calgary – Calgary
Caproco Corrosion Prevention Ltd. – Edmonton	Inspection Services	Water Towers at: Provincial Gaol – Fort Saskatchewan Alberta School Hospital – Red Deer Deerhome Institute – Red Deer Alberta Hospital – Edmonton Welfare Centre – Gunn Belmont Rehabilitation Centre – Edmonton
Reid, Crowther & Partners Limited – Edmonton	Mechanical and Electrical Engineering	(a) Addition of "J" Wing, Northern Alberta Institute of Technology – Edmonton (b) Conversion of Air System, Northern Alberta Institute of Technology – Edmonton
Russell & Needham – Medicine Hat	Architectural Work	Court House – Medicine Hat
Bittorf-Wensley – Edmonton	Architectural Work	Court House – Red Deer
Keith Little Associates Limited – West Vancouver, B.C.	Kitchen Design and Consultation	Block "A", Food Services, Southern Alberta Institute of Technology – Calgary

R. Clarke – Edmonton	Architectural Work	Master Plan and Programmes, Health Sciences Centre – Edmonton
M. Lukomskyj – Edmonton	Land Survey	University of Alberta – Edmonton
Blais & Pratt – Edmonton	Architectural Work	Metals Building, Agricultural and Vocational College – Vermilion
D. G. Ross – Edmonton	Architectural Work	Provincial Treasury Branch Building – Vegreville
Strong, Lamb & Nelson – Edmonton	All Engineering Work	Site Services Master Plans and Plans for Phase I and Phase II construction, Agricultural and Vocational College – Olds
Bell, McCulloch, Spotowski, Associates – Edmonton	Architectural Work	Court House – Edmonton
Rekken, Illmayer & Co. – Edmonton	Structural Engineering	Swine Barn, Maintenance and Storage Shop, Agricultural and Vocational College – Olds
Rensaa, Minsos & Associates – Edmonton	Architectural Work	Admission Building, Alberta Hospital – Edmonton
Angus Butler Engineering Ltd. – Edmonton	Mechanical and Electrical Engineering	Sign, Paint and Carpenter Shop, Highways Maintenance Garage – Southeast Edmonton
Whittaker, Carswell & Co. – Calgary	Structural Engineering	Engineering Centre, Phase IIIA, University of Calgary – Calgary
Hutcheon Engineering Ltd. – Edmonton	Chemical Engineering	Water Systems under the jurisdiction of the Utilities Branch, Department of Public Works
Kostenuke, Forest & Associates Ltd. – Calgary	Mechanical and Electrical Engineering	Engineering Centre, Phase IIIA, University of Calgary – Calgary
Allsopp Morgan Engineering Ltd. – Edmonton	All Engineering Work	Site Services Master Plans and Plans for Phase II and Phase I, Agricultural and Vocational College – Fairview
Snell, Oslund & Horne – Red Deer	Site Survey	Alberta Hospital – Ponoka

Consultant	Type of Service	Project
John McIntosh & Associates – Edmonton	Architectural Work	Furnishings and Equipment, Consolidated Laboratory Building – Edmonton
Angus Butler Engineering Ltd. – Edmonton	Mechanical and Electrical Engineering	(a) Major Alterations to Pilot Plant, Alberta Research Council – Edmonton (b) Relocation of Overhead Unit Heaters, Phase I, Northern Alberta Institute of Technology – Edmonton
Cheriton Bolstad Engineering Ltd. – Edmonton	All Engineering Work	Underground Utilities Distribution System, Phase II, University of Calgary – Calgary
J. H. Keating & Co. – Edmonton	Structural Engineering	Provincial Museum and Archives, Phase II – Edmonton
H. W. Klassen & Associates Ltd. – Calgary	All Engineering Services	Tunnels, Addition to Services Building and Additional Boiler and Refrigeration System, Alberta Hospital – Claresholm
Miss Audrey Dundas – Edmonton	Food Service, Mechanical and Electrical Engineering	Food Services Facilities, Provincial Museum and Archives – Edmonton, and Rosehaven Home – Camrose
G. J. Koenig – Edmonton	Architectural Work	Laundry Building, Alberta Hospital – Ponoka
Chabot Engineering – Edmonton	Mechanical Engineering	Peace River Regional Veterinary Laboratory – Fairview
Underwood, McLellan and Associates Limited – Edmonton	Municipal Engineering	Water and Sewer Investigation and Report, Alberta Hospital – Ponoka
Associated Corrosion Consultants Ltd. – Calgary	Inspection Services	Water Towers at: Provincial Gaol – Lethbridge; Baker Memorial Sanatorium – Calgary; Provincial Gaol – Calgary; Bowden Institute – Bowden; Elkwater Provincial Park; Agricultural and Vocational College – Olds
M. Kinash Engineering Services Ltd. – Edmonton	Structural Engineering	Major Alterations to Pilot Plant, National Research Council – Clover Bar

Gamma Engineering Ltd. – Calgary	Communication Engineering	Communications Facilities, Southern Alberta Institute of Technology – Calgary
H. K. Davis & Associates Ltd. – Weston, Ontario	Specialized Electrical Engineering	Television Facilities for various buildings, University of Alberta – Edmonton, and University of Calgary – Calgary
J. D. Henderson Engineering Ltd. – Edmonton	Mechanical Engineering	Ventilating and Air-conditioning, Provincial Building – Grande Prairie
Kostenuke, Forest & Associates Ltd. – Calgary	Mechanical and Electrical Engineering	Phase IV, Engineering Building, University of Calgary – Calgary
Underwood, McLellan & Associates Limited – Edmonton	Municipal Engineering	Water and Sewer requirements, University of Calgary – Calgary
Canadian Engineering Surveys Ltd. – Edmonton	Site Survey	Alberta Hospital – Edmonton
Clark & Swanby – Calgary	Site Survey	Baker Memorial Sanatorium – Calgary
J. D. Henderson Engineering Ltd. – Edmonton	Mechanical and Electrical Engineering	Ventilating Systems for Buildings 10 and 12, and Sprinkler System for Building 12, Rosehaven Home – Camrose
J. D. Henderson Engineering Ltd. – Edmonton	All Engineering Work	Central Services Building and Tunnels, Rosehaven Home – Camrose
Whittaker, Carswell & Company Ltd. – Calgary	Structural Engineering	Phase IV, Engineering Building, University of Calgary – Calgary
Clark & Swanby – Calgary	Survey	Alberta School Hospital – Red Deer
David McLeod & Associates – Edmonton	Architectural Work	Infirmary Building – Ponoka
Donald Bittorf and Donald Pinckston – Edmonton	Long Range Planning	North Garneau Area, University of Alberta – Edmonton
Vinto Engineering Ltd. – Edmonton	Mechanical, Electrical and Civil Engineering	North Loop Services Tunnel, University of Alberta – Edmonton

Consultant	Type of Service	Project
Stanley Associates Engineering Ltd. – Edmonton	Municipal Engineering	Roadways and Parking Study, Provincial Auditorium and Southern Alberta Institute of Technology – Calgary
Underwood, McLellan & Associates Ltd. – Calgary	Site Survey	Health Sciences Centre – Calgary
Stanley Associates Engineering Ltd. – Edmonton	Municipal Engineering	Extension to Sewer System, University of Alberta – Edmonton
Sinclair, Skakun, Naito – Edmonton	Architectural Work	Gymnasium Building, Agricultural and Vocational College – Vermilion
Allsopp Morgan Engineering Ltd. – Edmonton	All Engineering Work	Site Services, Master Plans and Plans for Phase I and Phase II construction, Agricultural and Vocational College – Vermilion
Leonard C. Klingbell – Edmonton	Architectural Work	Interior Fittings and Furnishings, Home Economics, Commercial and Academic Building, Agricultural and Vocational College – Vermilion
William Hnidan – Edmonton	Architectural Work	Forest Service Warehouse and Maintenance Depot – Edmonton
Wallbridge & Imrie – Edmonton	Architectural Work	Dormitory and Recreation Building, Diagnostic and Receiving Centre – Edmonton
Cheriton Bolstad Engineering Consultants – Edmonton	All Engineering Work	Site Services for Health Sciences Centre – Edmonton
Stanley Associates Engineering Ltd. – Edmonton	Municipal Engineering	Paving and Related Work, Provincial Gaol – Peace River
R. M. Hardy & Associates Ltd. – Edmonton	Soils and Foundation Investigation	Social Sciences and Sciences Complex, Phase III, University of Calgary – Calgary

Materials Testing Laboratories Ltd. – Edmonton	Concrete Testing	"J" Wing Addition, Northern Alberta Institute of Technology – Edmonton
J. D. Henderson Engineering Ltd. – Edmonton	Mechanical Engineering	Laundry Equipment and Conveyor System, Laundry Building, Alberta Hospital – Ponoka
M. Kinash Engineering Services Ltd. – Edmonton	Structural Engineering	Addition to Alberta Research Council Building, University of Alberta Campus – Edmonton
Rule, Wynn, Forbes, Lord & Partners – Edmonton	Architectural Work	(a) Alberta Vocational Centre – Calgary (b) Alberta Vocational Centre – Edmonton
Angus Butler Engineering Ltd. – Edmonton	Mechanical and Electrical Engineering	Addition to Research Council Building, University of Alberta Campus – Edmonton

H. W. BRETTELLE

Director of
Maintenance

ANNUAL REPORT 1966/67

MAINTENANCE BRANCH

DEPARTMENT OF PUBLIC WORKS

The Maintenance Branch of the Department of Public Works is responsible for the Maintenance of all Public Buildings, Court Houses, Treasury Branches, Auditoriums, Institutes of Technology, Highways Maintenance Garages and Repair Depots, Forestry Division Buildings, Provincial Hospitals, Sanatoriums, Provincial Gaols, Clinics, and Welfare Homes. These installations range from Coutts on the Southern Alberta border to Footner Lake some 1,000 miles north of this border.

Mr. H. W. Brettelle, Director of Maintenance, and Mr. R. C. Kendal, Assistant Director of Maintenance, direct the operation of the branch from the central office, Terrace Building, Edmonton.

Maintenance funds are provided annually under separate votes 2609, 2610, and 2612. Appropriations and actual expenditures for the fiscal year are listed hereunder:

2609	$ 734,400.00
2610	8,816,120.00
2612	3,142,940.00

Vote 2609 provides funds for Administrative Staff salaries, Truck Fleet Operator salaries, Truck Rentals, and Technical Staff salaries. Vote 2610 provides funds for the maintenance of Public Buildings. Vote 2612 provides funds for the maintenance of Provincial Hospitals, Gaols, Welfare Homes and Clinics. The appropriation under Vote 2610 included $212,855.00 for Special Maintenance, and under Vote 2612, $258,400.00 for Special Maintenance. The Special Maintenance Appropriation provides funds specifically for renovations, major repairs, re-wiring, and plumbing replacement, re-painting and/or re-decorating. This is work to be carried out over and above normal maintenance requirements.

All Maintenance commitments for the fiscal year were discharged within the appropriated amounts. The total appropriation of the three votes provided sufficient funds to meet the current year's expenditures.

In addition to these votes there is a transfer Vote 2699 which provides an appropriation for the operation of a "Salary Pool". This pool provides a source of manpower in the trades and labour field. Employees in this pool may be utilized in any area of the Province and cost of their services charged to either of the two Maintenance Votes, 2610 or 2612, and the Capital Vote 2682.

Staff of the Maintenance Branch comprised approximately 1600 employees. This total included Supervisory, Drafting, Clerical, Trades and Labour, and Custodial staff. At the peak period, counting the hourly staff engaged, the total staff was 2400 people.

Maintenance services are provided from a total of seventeen fully equipped Carpenter Shops at strategic locations throughout the Province. In addition to these the Branch operates the central production shop in Edmonton under the supervision of Mr. A. Webster, Production Shop Supervisor. Facilities for the manufacture of furniture, counters, shelving, and office fixtures are provided. All Treasury Branch fixtures are manufactured in this shop. Skilled tradesmen in the various fields can cope with virtually any requirement of the various Government Departments and a high standard of workmanship is maintained.

Construction of a second production shop was completed at Calgary during February and the Maintenance Staff were in the process of becoming established in their new premises by the end of the fiscal year. It is anticipated that this shop, which is similar to the one in Edmonton, will handle most of the requirements for the Southern Region of the Province. Production output should commence in May of the next fiscal year and should reach maximum output within that year.

The Stock Advance Branch of the Department of Public Works, administered by Mr. B. Neilson, Accountant, maintains a material warehousing service enabling both of these shops to purchase the bulk of their requirements "over the counter." This provides an immediate source of supply to expedite manufacture. Volume purchasing aids in the reduction of materials costs. This Branch also maintains an Equipment Rental Pool, which is an immediate source, through rental, of a great variety of construction equipment frequently used by the Maintenance Branch.

Mr. J. Gunn, Custodial Supervisor of the Northern region, and Mr. J. Inglis, Custodial Supervisor of the Southern region, are jointly responsible for these services which are provided utilizing a staff of Caretakers and Institutional Service Workers. Caretaker Supervisors are responsible for janitorial work in the various buildings and are on duty with their staffs in order that active supervision is provided at all times. In addition to interior cleaning of buildings, the Caretaker staff are required to remove snow from walks and driveways in the winter and do limited landscaping during the summer months where gardening staff is not available. Female staff (Institutional Service Workers) are utilized in some buildings to clean female washrooms and also for the dusting and cleaning of offices. Use of this type of employee will be increased.

The Maintenance Branch was reorganized in the 1965/66 fiscal year by Mr. Brettelle dividing the Province into two regions. This reorganization has proven to be very beneficial in that more efficient service may be provided, and with decentralization a saving is effected in reduced costs of travel expense and reduction of travelling time by employees. This will be further reflected in the establishment of the new production shop at Calgary.

An Annual Meeting of Maintenance Supervisors is held at the Terrace Building in March of each year. This year's meeting was held on March 21st and 22nd and was attended by all Supervisors. The meeting provides an opportunity for a review of the current year's operation, discussion of the next fiscal year's program as well as new methods, procedures which may be placed before the meeting for consideration.

The two Provincial Auditoriums located at Edmonton and Calgary and the Legislative Building in Edmonton continue to be tourist attractions with some 50,000 visiting each of the Auditoriums and the Legislative Buildings. Guides are provided at each location to give a brief history and highlights of each of the buildings. As Centennial projects the Provincial Government undertook the floodlighting of the Legislative Building, the installation of a Carillon and construction of an Eternal Flame on the Legislative Grounds. The installation of the floodlighting has enhanced the appearance of the Legislative Building tremendously and will no doubt prove a very great tourist attraction. The Band Shell on the Legislative Grounds and the beautiful expanse of lawn provide ideal surroundings for summer band concerts which may be enjoyed by the public on weekends. During the week background music is provided by the Grounds Public Address System and the Carillon is played for short periods daily.

Mr. J. Schroder, Superintendent of Grounds, is responsible for the Landscaping Maintenance of this Department. Plants are protected at the Government Greenhouse located immediately south of the Terrace Building and the staff of Gardeners and Groundsmen operate from this central location. Thousands of bedding out plants are provided for many buildings throughout the Province. The Greenhouse is open to visitors the year round and attracts many people annually.

The Government Garage provides mechanical service for the Departmental Truck and Car fleet. A staff of qualified mechanics overhauls and services vehicles of most Departments. Vehicle fuel is dispensed daily as part of the garage service. Mr. R. Granfield, Mechanical Equipment Shop Supervisor, is responsible for the operation of the Government Garage. A Heavy Equipment Repair Garage is also operated at the Lambton Park Warehouse site providing a similar service for heavier vehicles. Mr. D. A. Martin, Mechanical Equipment Shop Supervisor, is supervisor of this garage and has, as well, a staff of fully qualified mechanics.

Mr. J. Ryan, Truck Dispatcher, is responsible for the dispatching of the Department of Public Works Truck Fleet comprised of 84 vehicles of various capacities. This fleet provides trucking service to all Departments. Fleet units range from two diesel tractor units with furniture van, high boy and heavy duty to one-half ton trucks. Deliveries are made throughout the Province. The truck fleet continues to expand due to the increasing demand and volume of goods to be transported.

During this fiscal year the Maintenance Branch was required to do Capital construction in excess of $4,350,000.00 over and above the normal Maintenance commitments. All programs were completed or re-voted for completion in the next fiscal year. Listed hereunder are some of the larger Capital projects and Special Maintenance.

CAPITAL CONSTRUCTION

Bowden Institution – BOWDEN
Renovations to main building

Baker Memorial Sanatorium – CALGARY
Renovations to pavilions

Provincial Gaol – CALGARY
Construct incinerator
Construct feed bin
Construct farm storage building
Construct car wash and steam rack
Construct grill and gate, cell block

Rosehaven Home – CAMROSE

Ventilate day rooms
Install hot water generator
Construct two stall garage

Alberta Hospital – CLARESHOLM

Modifications to ventilation and heating systems
Construct storage building

Aberhart Memorial Sanatorium – EDMONTON

Kitchen and laundry renovations
Construct addition to services building

Provincial Gaol – FORT SASKATCHEWAN

Addition to power plant
Construct maximum security isolation cells

Welfare Centre – GUNN

New electrical ring main

Provincial Gaol – LETHBRIDGE

Laundry and kitchen ventilation
Addition to cannery
Porches for 12 houses

Alberta Hospital – EDMONTON

Install new elevator in building No. 5
Construct incinerator
Completion of greenhouse
Construct heated storage shed

Provincial Poultry Plant – OLIVER

Construct laying house
Construct office building

Alberta Hospital – PONOKA

Mechanical renovations

Deerhome Institution – RED DEER

Kitchen supply and exhaust air modifications

Alberta School Hospital – RED DEER

Construct greenhouse
Construct root cellar
Construct addition to Dept. of Public Works shop

Pineview Home – EDMONTON

Installation of air conditioning

Provincial Gaol – NORDEGG
Construct staff garages
Construct garage for fire truck

Provincial Laboratory of Public Health – EDMONTON
Building alterations
Installation of air conditioning

Equipment Maintenance and Repair Shop – CALGARY (Manchester)
Addition to paint shop
Addition to truck shop

Various Highways Sites
Construct salt and oil sheds
Fencing of property

Highways Maintenance Shop – FORT MACLEOD
Construct welding shop addition

Lands and Forests Division Headquarters
Construct implement sheds
Construct loading ramps
Install ventilation systems
Fencing various sites

Provincial Building – CAMROSE
Install air conditioning

Provincial Building – GRANDE PRAIRIE
Partitioning of 3rd floor

Provincial Building – HANNA
Install air conditioning

Main Treasury Branch – EDMONTON
Install air conditioning

Provincial Auditoriums – CALGARY and EDMONTON
Sound vibration control

S.A.I.T. – CALGARY
Renovate east block and other areas

Oil and Gas Conservation Board – CALGARY
Alterations for installation of I.B.M. equipment

Alberta Office Building – EDMONTON
Install air conditioning

Administration Building – EDMONTON
Renovations to elevators

Alberta Research Council, Pilot Plant – CLOVER BAR
Alterations and modifications to fresh air intake

Highways Building – EDMONTON
Completion of air conditioning

Legislative Building – EDMONTON
Install exterior floodlighting
Replace dumbwaiter

Legislative Grounds – EDMONTON
Construct eternal flame (Centennial)

N.A.I.T. – EDMONTON
Re-location of overhead unit heaters, Phase I
Construct annex floors
Modifications to gymnasium lighting
Renovation of office areas

Agricultural and Vocational College – OLDS
Construct greenhouse

Public Works Building No. 1 – EDMONTON
Alterations to Correspondence School Branch

Dept. of Public Works Warehouse – EDMONTON (Lambton Park)
Install heating
Construct 3-bay service garage

Agricultural and Vocational College – FAIRVIEW
Construct farm machinery and storage shop

Agricultural and Vocational College – VERMILION
Renovate students' residence
Underground distribution system

Demonstration Farm – BROOKS
Construct greenhouse
Construct vegetable warehouse

Adult Vocational Training School – FORT McMURRAY
Construct shop

Agriculture Building – EDMONTON
Major alterations

Fire Officers Training School – VERMILION
Construct Tower building
Fencing

Homes for the Aged
Heating modifications and roof replacement

Water Reservoirs – Various Locations
Painting of reservoirs and cathodic protection

Provincial Building – BARRHEAD
Exterior and interior painting

Provincial Building – DRUMHELLER
Interior painting and floor replacement

Provincial Building – EDSON
Re-painting interior
Re-dash stucco

Auditorium – CALGARY
Caulking outside panels

Auditorium – EDMONTON
Interior and exterior painting
Carpet replacement

Legislative Building – EDMONTON
Replacement pneumatic controls
Stair repairs

Natural Resources Building – EDMONTON
Replacement of water lines
Floor covering replacement

School for the Deaf – EDMONTON
Roof replacement

Department of Public Works Shops – GRANDE PRAIRIE
Alteration of buildings to suit shop requirements

SPECIAL MAINTENANCE 2612

Bowden Institution – BOWDEN
Replace roof on main building
Repairs to house No. 7
Baker Memorial Sanatorium – CALGARY

Plumbing replacement
Exterior and interior painting
Replace windows building No. 1

Rosehaven Home – CAMROSE

Replace galvanized water lines with copper
Install quarry tile and ceramic wall tile in bathrooms building No. 9 and main building

Alberta Hospital – CLARESHOLM

Interior and exterior painting
Replace roof dormitory No. 2
Repair roof dormitory No. 4

Belmont Girls – EDMONTON

Install suspended ceiling and new lighting in dormitory

Provincial Gaol – FORT SASKATCHEWAN

Replace plumbing "A" cell block
Paint tower house boiler room

Provincial Gaol – LETHBRIDGE

Exterior painting
Tiling of shower rooms

Alberta Hospital – EDMONTON

Replace manual controls with zoning valves
Heating modifications

Alberta Hospital – PONOKA

Renovations of staff residence
Ceramic tile in washrooms in male 8 and 11 wards
Install exhaust fans in various washrooms
Plumbing replacement
Replace street lights with luminaires
New lighting fixtures male dining hall

Alberta Hospital – RAYMOND

Interior painting

Deerhome Institution – RED DEER

Roof repairs
Replace roof O.T. building
Replace existing 2½" water mains with 4".

Alberta School Hospital – RED DEER

Replace street lights with mercury vapour type.

In closing we report with regret the sudden passing of Mr. E. E. Parks, Maintenance Supervisor at Alberta Hospital, Ponoka, on November 16, 1966.

ANNUAL REPORT 1966/67

PROPERTIES ADMINISTRATION SECTION

DEPARTMENT OF PUBLIC WORKS

E. E. WILSON

Properties
Administrator

This section is responsible for meeting the requirements of all Government departments for land and buildings and for the administration of such properties when acquired. These requirements generally fall into one of three categories: the acquisition of sites for development of new buildings, the purchase of existing buildings where these are available and suit the needs, or the leasing of temporary space.

When sites are required for development of new buildings, this Section determines the availability of such sites and negotiates for the purchase of the most suitable site. Information relating to the selected site is then provided to the Architectural and Engineering Branches together with a relevant format of space requirements so that design and planning may be commenced.

Acquisition of properties for major and long term developments is normally carried out under that section of the Public Works Act which provides for certain areas being declared, by Order in Council, to be "Public Works Development Areas."

A third Public Works Development Area has been so declared during this past year, for the purpose of acquiring a site for a new Courthouse in Edmonton. This will be situated immediately east of the City Hall.

When such a Public Works Development Area is established, the Property Administration Section is responsible for filing caveats against the titles to all properties within the specified area, and for notifying all property owners to this effect. Negotiations are then commenced for progressively acquiring these properties, but the Government is obligated at all times to purchase these properties at a reasonable figure as and when the owner wishes to dispose of the property. The owner is also entitled to lease back the property at a reasonable rental until such time as it is actually required for development.

Where temporary leased space is required, this Section is responsible for finding suitable space and negotiating the most advantageous lease for such space. After the terms and conditions of these leases are approved by a Space Committee and by the Minister of Public Works, then this Section is responsible for administration of such leased space and for the payment of all rents.

The acquiring and granting of easements and rights-of-way is a further responsibility of this Section, along with preventive and corrective measures with respect to encroachments.

The Properties Administration Section is responsible for all telephone installations and changes as required, and for the processing of all telephone charges.

Payments of all grants in lieu of taxes also comes under this Section.

PUBLIC WORKS RESERVES

Prior to August, 1963, anyone desirous of subdividing property was required to provide a certain percentage of the land as a Public Works Reserve, which was intended to provide for parks, schools, Public Works, etc., and all of these properties were held under the administration of the Minister of Public Works.

In 1963, "The Planning Act" was enacted and, under Section 151 of this Act, all existing reserves which were not in use or under lease by the Government were transferred to the municipalities in which the reserves were situated.

All reserves subject to leases come under the administration of this Section and, upon termination of such leases, the Duplicate Certificate of Title is filed with the appropriate Registrar for a Title to be raised by him in favour of the appropriate municipality, in accordance with the aforementioned Section 151 of "The Planning Act."

The following is a summary of some of the more important purchases made during the past fiscal year.

1. **Public Works Development Area No. 1 (Edmonton)**

   More commonly known as the "Government Area", this area was declared a Public Works Development Area in September, 1964. In the past year, twelve properties were purchased.

2. Public Works Development Area No. 2 (Edmonton)

A portion of the Garneau Area, set aside for University expansion, was declared Public Works Development Area No. 2 in August, 1965. The area affected is bounded by Saskatchewan Drive on the North, 87 Avenue on the South, 110 Street on the East, and 112 Street on the West.

The area bounded by 111 and 112 Streets and 88 Avenue and Saskatchewan Drive is required by the end of May, 1967, for development, and efforts are being concentrated in this area to this end. Approximately two-thirds of the properties in this area of first development have been purchased.

A total of 31 properties were purchased in the past fiscal year.

3. Public Works Development Area No. 3 (Edmonton)

This area comprises two blocks of land, bounded by 102A and 103A Avenues and 97 and 98 Streets, and was declared "Public Works Development Area No. 3" in September, 1966, for the purpose of acquiring a site for the proposed new Courthouse, Edmonton.

Six properties have been purchased in this fiscal year.

4. Purchase of Sites for Future Provincial Buildings, Treasury Branches and Other Government Buildings

Sites purchased during this fiscal year include seven for future Provincial Buildings, seven for Treasury Branches and nine for residences for various Departments.

Among the larger purchases were sites for:

(1) a Forestry Warehouse, Edmonton Industrial Airport
(2) an Adult Vocational Oilwell Training School, Edmonton
(3) an Adult Vocational Training Centre, Edmonton
(4) a Single Men's Hostel, Calgary

The former A.G.T. Building, now the Agriculture Building, was purchased from Alberta Government Telephones, and the Departments of Agriculture and Mines and Minerals now occupy this building.

A residence was purchased on St. George's Crescent for use as the Lieutenant Governor's residence, and this is presently being renovated and modified for this purpose.

ANNUAL REPORT 1966/67

UTILITIES BRANCH

DEPARTMENT OF PUBLIC WORKS

W. S. DAVIES, P.Eng.

Director of
Utility Services

This Branch was previously named "Mechanical Branch" but, due to the fact that this title was not completely descriptive of the duties of the Branch and, as some confusion existed between the titles "Mechanical Branch" and "Mechanical Engineering Section", the name of this Branch was changed to "Utilities Branch", effective April 1, 1966.

This Branch is responsible for the operation and maintenance of eleven power plants and seven heating plants serving major Provincial Institutions and other establishments in the Province. Plant locations are: eight in Edmonton and vicinity; two in Red Deer; three in Calgary; and one each at Ponoka, Camrose, Bowden, Claresholm and Lethbridge. These plants provide the utility services required, which consist of heat, power, water and sewage disposal.

Plant and office personnel total one hundred and ninety-four regular employees. During this fiscal year, thirty new employees were hired to replace those who resigned or retired. Fifteen employees received promotions within this Branch.

A Chief Heating Plant Engineer was placed at the Provincial Gaol, Peace River, in October, 1966, in order to become familiar with the equipment and services, and also to assist with inspection during the construction period. This Institution will not commence operation until early next year.

A planned maintenance program was initiated in all power plants during this year. The purpose of this program is to record all labour and material costs of the maintenance performed on equipment. With this information, it is possible to develop more economical procedures of maintaining equipment. Also, this information will assist in determining more efficient methods of operating plants.

The procedure of employing boiler water treatment companies to supply the necessary chemicals and also the technical knowledge for the supervision of boiler water treatment was discontinued. In place of this, a consulting engineering firm was retained to supply the professional knowledge required for boiler water treatment, and the necessary chemicals were purchased on the open market by the tendering system. This procedure has reduced the overall cost of water treatment and is providing a higher standard of supervision.

For the first time in the history of this Branch, a conference for the chief engineers was held. This conference took place in Edmonton on May 25 and 26, 1966. The purpose of this conference was to provide an opportunity to exchange ideas for the development of improved methods of plant operation. This conference proved to be of such value that it is planned to be held annually.

Major expansion to the facilities at Southern Alberta Institute of Technology, Calgary; Alberta Hospital, Claresholm; Public Works South Power Plant, Edmonton; Alberta Hospital, Edmonton; Deerhome Institution, Red Deer; Provincial Gaol, Calgary; Rosehaven Home, Camrose; Alberta School for the Deaf, Edmonton; Provincial Gaol, Peace River; Agricultural and Vocational Colleges, Fairview, Vermilion and Olds were planned and/or constructed under the direction of the Design and Construction Branch of the Department of Public Works during this fiscal year.

The power plant statistical figures on the following pages show a nine per cent increase of steam production and electrical power consumption compared to the 1965/66 fiscal year. Overall operating costs increased by seven per cent. The heating plant figures show approximately a four per cent increase in fuel consumption and twenty-three per cent increase in electrical power consumption. Overall operating costs increased by seven per cent.

GOVERNMENT OF ALBERTA POWER PLANT STATISTICS

For Year Ending March 31, 1967

APPROPRIATION 2614

	FUEL		WATER		ELECTRICITY		STEAM	EXPENDITURE
	Fuel Oil (Imp. Gal)	Gas (Cu. Ft.)	Pumped From Local Sources (Imperial Gallons)	Purchased (Imperial Gallons)	Generated (Kilowatt Hours)	Purchased (Kilowatt Hours)	Produced (Lbs.)	Plant Operation & Institutional Utilities
Baker Memorial Sanatorium, Calgary	50	84,535,000	20,592,506		807,610	115,720	61,942,120	$ 113,174.95
Southern Alberta Institute of Technology, Calgary	800	195,865,000		28,777,000	805,300	5,777,610	140,363,000	190,643.85
Alberta Hospital, Claresholm	50	49,724,000		4,896,594	58,180	1,433,605	38,876,125	112,243.03
Department of Public Works South Power Plant, Edmonton	—	1,210,647,500		17,560,000	14,380,000	65,307,200	887,384,735	808,412.02
Legislative Buildings Power Plant, Edmonton	1,000	247,135,000		62,907,625	1,294,300	17,550,400	205,581,200	264,330.18
Provincial Gaol, Fort Saskatchewan	500	85,347,000	16,848,353		926,800	382,600	65,790,275	83,423.03
Provincial Gaol, Lethbridge	200	53,549,000		18,571,700	587,640	35,160	40,605,800	75,235.05
Alberta Hospital, Edmonton	2,500	324,240,000		86,086,875	5,145,000	184,800	295,063,600	216,314.04
Alberta Hospital, Ponoka	4,845	309,359,000	65,655,000		4,940,600	226,800	249,762,900	204,687.73
Alberta School Hospital, Red Deer	300	187,968,000		40,361,437	1,829,500	1,599,600	155,379,154	165,592.24
Deerhome Institution Red Deer	978	137,545,000		47,593,750	819,400	3,768,360	125,754,200	169,327.66
	11,223	2,885,914,500	103,095,859	306,754,981	31,594,330	96,381,855	2,266,503,109	$2,403,383.78

Total Fuel Oil Used	11,223	Imperial Gallons
Total Gas Used	2,885,914,500	Cubic Feet
Total Water Used	409,850,840	Imperial Gallons
Total Electricity Used	127,976,185	Kilowatt Hours
Total Steam Produced	2,266,503,109	Pounds

STATISTICS ON CAPITAL EXPENDITURES – PROVINCIAL GOVERNMENT POWER AND HEATING PLANTS

For Year Ending March 31, 1967

APPROPRIATION 2684

	SHOP EQUIPMENT AND TOOLS	WATER STORAGE TANKS, HEATERS, PUMPS, WATER SOFTENERS, INSULATION	ATMOSPHERIC CONDENSER, CONTROLS AND INSTALLATION	ELECTRICAL PANELS AND EMERGENCY GENERATOR	SEWAGE PLANT, REPAIRS AND NEW EQUIPMENT	BOILER, CONTROLS AND PIPING	TOTAL EXPENDITURE (EACH PLANT)
Legislative Buildings Power Plant, Edmonton	$ 767.61	—	—	—	—	—	$ 767.61
Provincial Gaol, Fort Saskatchewan	—	$ 4,062.73	—	—	—	—	4,062.73
Alberta Hospital, Edmonton	—	—	$ 3,876.84	$ 1,323.42	$ 318.90	—	5,519.16
Alberta Hospital, Ponoka	—	559.76	—	—	1,219.00	—	1,778.76
Alberta School Hospital, Red Deer	—	17,866.44	—	—	—	$40,103.67	57,970.11
Deerhome Institution, Red Deer	2,076.45	—	—	—	—	—	2,076.45
Bowden Institution, Bowden	—	1,434.23	—	—	—	—	1,434.23
Rosehaven Home, Camrose	—	—	—	5,843.87	—	—	5,843.87
Provincial Gaol, Peace River	1,444.43	—	—	—	—	—	1,444.43
	$ 4,288.49	$23,923.16	$ 3,876.84	$ 7,167.29	$ 1,537.90	$40,103.67	$80,897.35

PROVINCIAL GOVERNMENT HEATING PLANT STATISTICS

For Year Ending March 31, 1967

APPROPRIATION 2615

	HEATING OIL (Imp. Gal.)	GAS (Cu. Ft.)	WATER (Imp. Gal.)	POWER (Kilowatt Hrs.)	EXPENDITURE Plant Operation and Maintenance
Bowden Institution, Bowden	556	41,768,000	7,346,500	833,110	$ 84,563.88
Provincial Gaol, Calgary	40	48,258,000	20,293,000	1,545,059	78,798.17
Rosehaven Home, Camrose	350	48,312,000	11,580,000	793,474	79,964.10
Belmont Rehabilitation Centre, Edmonton	100	22,816,000	7,314,374	497,700	50,660.29
Alberta Institution For Girls, Edmonton	200	22,542,000	2,334,500	711,680	46,633.94
Alberta School For The Deaf, Edmonton	—	38,725,000	8,615,000	972,000	66,347.94
Northern Alberta Institute Of Technology, Edmonton	25	218,840,000	35,417,238	13,473,728	220,004.35
	1,271	441,261,000	92,900,612	18,826,751	$627,192.67

Total Fuel Oil Used	1,271 Imperial Gallons
Total Gas Used	441,261,000 Cubic Feet
Total Water Used	92,900,612 Imperial Gallons
Total Power Used	18,826,751 Kilowatt Hours

STATEMENT OF OPERATION AS AT MARCH 31, 1967
STOCK ADVANCE BRANCH
DEPARTMENT OF PUBLIC WORKS

ACCOUNT TITLES	TRIAL BALANCE		PROFIT & LOSS STATEMENT		BALANCE SHEET	
	Debit	Credit	Debit	Credit	Assets	Liabilities
Material & Supplies	$ 436,368.69	$	$	$	$ 436,368.69	$
Work in Process	4,700.71				4,700.71	
Accounts Receivable	481,269.85				481,269.85	
Equipment New	244,277.81				244,277.81	
Deferred Expenses	5,267.19				5,267.19	
Accounts Payable		82,475.62				82,475.62
Provincial Treasurer's Advance		979,532.82				979,532.82
Supervision Charged Out		160,026.21		160,026.21		
Labour Charged Out		442,612.25		442,612.25		
Previous Year's Refunds		221.55		221.55		
Equipment Rentals		244,424.71		244,424.71		
Profit & Loss on Disposal of Non Stock Scrap		696.71		696.71		
Equipment Operating Expense	87,277.32		87,277.32			
Office Equipment Services & Rentals	469.72		469.72			
Stock Insurance	1,685.79		1,685.79			
Sundry Expenses	17.09		17.09			
Telephone, Telegraph & Postage	23.20		23.20			
Dry Cleaning	241.50		241.50			
Charges for Reels	30.00				30.00	
Depreciation on Equipment	79,545.65		79,545.65			
Stationery & Supplies	4,265.48		4,265.48			
Shipping Supplies	939.96		939.96			
Uniforms	95.40		95.40			
Small Tools	54.65		54.65			
Profit & Loss on Disposal of Equipment		5,104.99		5,104.99		
Inventory Adjustment Account		4,866.65		4,866.65		
Fees — Tuition	66.50		66.50			
Salaries (Staff)	118,723.85		118,723.85			
Travelling Expenses (Staff)	417.22		417.22			
Salaries & Wages (Casual Help)	11,611.68		11,611.68			
Labour Expense (S.A. Jobs)	442,612.25		442,612.25			
	$1,919,961.51	$1,919,961.51	$748,047.26	$857,953.07	$1,171,914.25	$1,062,008.44
Net Profit			109,905.81			109,905.81
			$857,953.07			$1,171,914.25

ANNUAL REPORT 1966/67

PERSONNEL BRANCH

DEPARTMENT OF PUBLIC WORKS

W. A. R. BARRY
Personnel Officer

SENIOR STAFF CHANGES

Mr. N. M. Fleming was appointed Chief Architect, Northern Region, on January 1, 1967, replacing Mr. H. A. Henderson who assumed a Specialist Architect position. Mr. Fleming had been Liaison Architect since his return to this Department from the Alberta Liquor Control Board on April 1, 1966.

The Senior Architectural position in Calgary was reclassified to an Architect V and designated Chief Architect, Southern Region, on October 1, 1966. The incumbent, Mr. V. G. Bathory, was reclassified and continued to fill the position.

In order to provide professional emphasis for the Construction Inspection function, it was necessary to establish a senior engineering position to be known as Chief Public Works Construction Engineer. The necessity for professional leadership in this phase of the work had been recognized for some time, and this change became more imminent as Public Works representatives had to contend with more professional qualified engineers during meetings regarding contract and construction arrangements. Mr. W. A. Hiller, who had previously been employed with Unalta Construction Ltd., Edmonton, was appointed to the new position on March 1, 1967.

OPERATION OF THE PERSONNEL OFFICE

An Assistant Personnel Officer position was established at the beginning of the fiscal year and Mr. S. J. Cairns was recruited. He assumed the duties on August 15, 1966.

Following the appointment of a replacement Senior Records Clerk, one position was segregated from the Records Organization to provide for a Senior Classification Clerk. This function includes the responsibility of investigating details regarding proposals for changes in positions and proposals for the addition of new positions to the establishment.

PROJECT WORK

A study of the Maintenance Branch functions and organization resulted in the assembling of statistical data for ranking the responsibilities of the supervisors in charge of the various regions and areas. This data included the number of employees at each level, number of buildings, total floor space, type of construction, use and annual maintenance costs. It was correlated graphically and provided the basis for reclassifying 23 positions and confirming the current classifications for 27 positions.

A Clerical Resurvey was completed covering 112 positions of which 96 were recommended for no classification change, 8 were recommended for changes in kind only, and 8 were recommended for changes in classification level.

TRAINING COSTS COMMITTEE

The Department of Public Works Training Costs Committee continued to function with the original members throughout the year. The volume of applications increased considerably and details regarding the processing of these is provided. The basic criteria for considering applications were reviewed and restated by the committee in March, 1967.

The number of cases approved for partial reimbursement was 73; the number of cases rejected for partial reimbursement was 1; the number of cases approved for Leave of Absence for Educational Purposes, part- or full-time, was 3.

CONCLUSION

The organization at the senior levels has been improved, the recruitment and selection function has been expanded, and tangible data has been assembled for classification of maintenance supervisory staff and for clerical staff. In summary, considerable progress was made during the year.

STATISTICAL DATA – SALARIED STAFF

The following data provides a record of the changes that occurred during the year and a comparison with the previous year.

Establishments	**1965/66**	**1966/67**
Positions April 1	1722	1863
Added through Estimates	124	168
Added through Sec. 14 Public Service Act	17	74
Less abolitions	0	42
TOTAL	1863	2063
Positions Reclassified	54	59
Positions submitted but not reclassified	18	8
Positions submitted and pending as of March 31	4	50
TOTAL	76	117
Employees		
Employees Promoted	89	177
Employees Demoted	2	10
TOTAL	91	187
Employees terminated during the year:		
Resigned (including temporary summer relief employees)	115	146
Retired	27	35
Deceased	15	10
Transferred to other departments	14	8
Dismissed	10	12
TOTAL	181	211
Vacancies advertised through the Personnel Administration Office	129	202
Positions advertised through D.P.W. competitions	94	264
TOTAL VACANCIES ADVERTISED	223	466

STATISTICAL DATA – WAGES STAFF

The following data provides a record of the changes in numbers of wage employees that occurred during the year.

Employees	**1965/66**	**1966/67**
Beginning of fiscal year	469	653
End of fiscal year	603	732
Average per month	583	842

GRANTS PAYABLE UNDER THE PUBLIC WORKS ACT, CHAPTER 270, SECTION 19(1), TOWARDS THE COST OF CONSTRUCTION OF SWIMMING POOLS OR THE IMPROVEMENTS THEREOF

1. A grant of $7,000.00 or one third of the actual cost of construction, whichever is the lesser amount, is payable towards the cost of construction of a swimming pool.
2. A grant of $7,000.00 is payable towards the cost of improvement to an already existing swimming pool for which no grant has already been paid, or one third of the actual cost of such improvements, whichever is the lesser amount.
3. Grants as set forth above are payable to Municipalities with a population of not more than 10,000.
4. Approval by the Architects of the Department of Public Works must be obtained for the plans of the pool and drainage arrangements.
5. Approval of the plans of the pool as to sanitary arrangements must be obtained from the Sanitary Engineer of the Department of Health.
6. The grant will be computed from an audited statement of expenditure which must be submitted to the Department of Public Works.
7. The title of the swimming pool must be held by the Municipality, village, town or city.

During the fiscal year 1966/67 a total of $42,000.00 was paid to the following as "swimming pool grants":

Village of Thorhild
Town of Mayerthorpe
Town of Innisfail
Town of Sundre
Town of Stettler
Town of Fairview

THE CROWN PROPERTY MUNICIPAL GRANTS ACT

Under "The Crown Property Municipal Grants Act", being Chapter 20 of the Statutes of Alberta, 1961, and amendments and regulations thereto, grants are paid on all Crown owned properties other than the following:

(a) real property forming part of an undertaking in respect of the conservation, irrigation, reclamation, rehabilitation or reforestation of land;

(b) any park, historical site, monument or museum;

(c) except when otherwise prescribed by the Provincial Treasurer, real property leased to or occupied by a person from whom the municipality may, by reason of his interest in the property, levy and collect a municipal tax;

(d) real property used for or in connection with academic, trade, forestry or agricultural schools, colleges or universities;

(e) real property used for or in connection with hospitals and mental institutions;

(f) (deleted by amendment);

(g) real property comprising streets, lanes, roadways or road allowances;

(h) real property that is not used or actively occupied by the Crown and that is not occupied by a person under a lease, licence permit or agreement for sale;

(i) real property owned by the Alberta Liquor Control Board, the Alberta Government Telephones Commission or the Workmen's Compensation Board;

(j) any specific property or class of real property exempted from the provisions of the Act by the Lieutenant Governor in Council.

In addition to this, grants are paid on any building which would otherwise be excluded but which are serviced by local utilities services, such as forestry ranger buildings.

In the case of grazing leases on Crown lands, a portion of the lease fee is returned to the Municipality and such payments made are not included in the figures shown as payments made under "The Crown Property Municipal Grants Act".

GRANTS IN LIEU OF TAXES

During the fiscal year 1966/67, a total of $1,711,522.25 was paid to the following Cities, Towns, Villages, Counties and Municipal Districts throughout Alberta as grants in lieu of taxes for Government buildings:

CITY OF:	
Calgary	$291,742.15
Camrose	17,667.38
Drumheller	13,849.55
Edmonton	807,273.32
Grande Prairie	47,603.40
Lethbridge	41,309.19
Medicine Hat	6,664.00
Red Deer	32,210.75
Wetaskiwin	9,334.71
TOWN OF:	
Athabasca	1,753.38
Barrhead	6,035.12
Black Diamond	196.35
Blairmore	3,459.60
Bonnyville	3,982.70
Bow Island	71.52
Brooks	1,778.86
Cardston	2,972.32
Castor	554.09
Claresholm	576.64
Cold Lake	567.92
Coleman	573.60
Coronation	3,337.11
Devon	742.18
Didsbury	475.32
Drayton Valley	2,144.34
Edson	14,697.80
Fairview	942.08
Falher	604.43
Fort Macleod	4,829.50
Fort Saskatchewan	47,516.56
Granum	530.20
Grimshaw	4,664.40
Hanna	10,036.65
High Prairie	7,963.60
Hinton	829.40
Innisfail	1,148.24
Killam	762.95
Lac La Biche	7,040.64
Lacombe	3,120.39
Manning	1,712.92
Mayerthorpe	5,253.00
McLennan	685.68
McMurray	9,795.04
Olds	1,899.57
Peace River	22,856.06
Poncka	945.18
Redwater	427.05
Rocky Mountain House	11,957.40
Slave Lake	5,118.85
Smoky Lake	81.78
Spirit River	5,278.16
Stettler	3,422.44
St. Paul	5,027.00
Swan Hills	1,007.50
Taber	1,489.80
Three Hills	316.40
Two Hills	1,921.63
Valleyview	2,786.25
Vegreville	4,583.74
Vermilion	4,015.28
Viking	410.13
Vulcan	905.60
Wainwright	766.20
Westlock	546.70
Whitecourt	2,780.38
VILLAGE OF:	
Andrew	594.00
Bon Accord	165.20
Boyle	35.34
Breton	18.00
Chipman	40.00
Consort	882.64
Czar	349.44
Duchess	376.80
Elnora	138.05
Evansburg	204.68
Hines Creek	502.20
Kinuso	47.45
Rycroft	1,441.05
Ryley	582.76
COUNTY OF:	
Forty Mile #8	811.68
Grande Prairie #1	303.60
Lac Ste. Anne	7,794.21
Lacombe #14	548.91
Leduc #25	2,574.65
Lethbridge #26	39,922.16
Newell #4	3,866.32
Poncka	7,169.68
Red Deer #23	71,559.82
St. Paul	42.24
Smoky Lake	28.44
Stettler #6	99.43
Strathcona #20	2,367.12
Thorhild #	37.20
Two Hills #21	90.62
Vermilion River #24	2,411.50
Warner #5	715.35
Wetaskiwin #10	972.80
Wheatland #16	200.45
MUNICIPAL DISTRICT OF:	
Fairview	1,007.72
Foothills	1,465.96
Peace #135	333.59
Rockyview #44	55,636.20
Stony Plain #84	1,045.00
Sturgeon #90	6,649.50
Westlock #92	150.40
Willow Creek #26	577.20
IMPROVEMENT DISTRICT OF:	
Canmore #46	1,598.73
Entrance #96	1,816.64
Raven River #65	795.44

SUMMARY OF EXPENDITURES BY THE DEPARTMENT OF PUBLIC WORKS FOR THE FISCAL YEAR ENDING MARCH 31, 1967, AND THE CORRESPONDING FIGURES FOR THE PREVIOUS FIVE YEARS

Appropriation Number	Description	Amount	Total					
		1966 - 1967		1965 - 1966	1964 - 1965	1963 - 1964	1962 - 1963	1961 - 1962
	ADMINISTRATION:							
2601	Minister's Office	$ 25,109.29	$	$ 19,611.92	$ 19,826.65	$ 21,105.15	$ 18,719.66	$ 16,574.47
2602	General Administration	447,080.75		308,454.93	265,374.42	307,950.76	303,893.42	285,386.43
2606	Public Buildings Staff	1,336,912.89		1,053,103.44	905,232.22	868,075.25	859,504.28	799,975.18
2608	Utilities Branch - Administration	61,126.44		55,577.87	49,180.05	48,305.35	49,642.11	49,587.50
2609	Maintenance Branch	696,389.67	2,566,619.04	591,504.37	262,766.11	—	—	—
	MAINTENANCE:							
2610	Legislative & Public Buildings - Maintenance	9,173,215.71		7,640,044.85	6,885,676.46	6,167,042.90	5,774,306.02	5,281,958.59
2612	Public Institutions - Maintenance	2,926,651.00		2,507,108.06	2,302,316.38	1,806,845.52	1,637,248.57	1,510,067.74
2614	High Pressure Power Plants	2,403,383.78		2,259,410.30	2,111,109.12	2,002,671.01	1,756,036.45	1,573,583.64
2615	Low Pressure Power Plants	632,346.12		581,977.24	531,116.88	497,239.15	399,720.18	296,202.94
2620	Government Automobile Service	70,191.03	15,205,787.64	78,650.92	80,199.49	74,223.68	77,469.05	76,370.11
	GRANTS							
2624	Grants to Municipalities for Swimming Pools	42,000.00		14,000.00	28,232.32	14,000.00	56,000.00	42,000.00
2625	Grants for Construction of Public Buildings	5,680.26		111,333.36	70,768.10	312,727.29	123,181.86	625,902.77
2626	Grants to Municipalities in Lieu of Taxes	1,711,522.25	1,759,202.51	1,642,900.55	1,544,669.82	1,461,790.64	1,403,891.05	—
	CAPITAL:							
2681	Administrative and Judicial Buildings - Furnishings and Equipment	664,891.46		455,172.68	437,303.98	414,652.65	5,192,351.93	3,525,469.42
2682	Public Buildings - Sites and Construction	80,007,623.37		37,778,360.82	19,363,809.10	13,155,337.37	24,846,075.81	22,570,702.47
2683	Specialized Institutional and Departmental Buildings - Furnishings and Equipment	9,841,854.41		6,771,299.15	4,735,109.95	6,843,585.24	—	—
2684	Power Plant Construction	80,897.35	90,595,266.59	90,859.99	118,165.72	131,321.85	209,600.59	106,104.16
			$110,126,875.78	$61,959,370.45	$39,710,856.77	$34,126,893.81	$42,707,640.98	$36,759,885.42